

# BIENNIAL REPORT

OF THE

## BOARD OF

## GAME COMMISSIONERS

OF THE

COMMONWEALTH OF PENNSYLVANIA

FOR THE

1925-1926

BIENNIUM

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HARRISBURG, PENNA.

1926

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OF  
BOARD OF GAME COMMISSIONERS**

Harrisburg, Pa., June 1, 1926

*To His Excellency, Gifford Pinchot,  
Governor of Pennsylvania*

Sir: As directed by Act of Assembly, the Board of Game Commissioners begs to submit their report for the past two years. As a matter of further information, the report of our Executive Secretary, covering the various phases of the work in detail, is attached in order that such material may be printed and become available to the citizens of the Commonwealth.

The members of the Board have spent liberally of their time and personal funds visiting different portions of the Commonwealth, investigating conditions and addressing many gatherings of sportsmen and other clubs. Collectively we believe we have devoted more time to studying and directing the work of wild life conservation than has been spent by any Board in a like period.

We find that the people of the Commonwealth are taking more interest in game and wild bird conservation than ever before. Pennsylvanians doubtless observe the law pertaining to game and wild birds better than the citizens of any other state.

It is with deep regret that we record the death of a former member and for twelve years the president of the Board, Doctor Charles B. Penrose of Philadelphia, who passed

away on February 27, 1925. Doctor Penrose became a member of the Board on February 24, 1899 and served continuously until his resignation on December 20, 1922, a total length of service considerably exceeding that of any other member. Through his sterling leadership and unselfish devotion to the cause, the work of the Board of Game Commissioners of Pennsylvania was thoroughly established and became the leader of all states in wild life conservation, and the cause of conservation suffered an irreparable loss through his passing. Doctor Penrose is generally accredited with having been the leader in Pennsylvania's game conservation program. He doubtless did more than any other person to make possible the results so far obtained.

It is with equal regret that we record the passing of one of our number, Mr. John S. Speer, a resident of Saint Marys, Elk County, on July 17, 1925. Mr. Speer had served on the Board a total of more than nine years. He had a wider acquaintance among and the confidence of more sportsmen of the Commonwealth than it has been the privilege of the average member of this Board to enjoy. For many years he was one of the principal officers of the Pennsylvania State Sportsmen's Association, the organization originally responsible for the creation of this Board. He was constantly on the alert and always advocated and urged any action which would tend to increase Pennsylvania's game supply. In the passing of Mr. Speer, the sportsmen of the state lost a true friend and the state a competent and zealous public servant.

## **ADMINISTRATIVE ORGANIZATION**

The entire organization has been properly coordinated and the work better systematized throughout. In addition, the Educational Service, which was established in November,

1924, to take charge of a comprehensive educational program concerning the value of all beneficial wild life, including our song and insectivorous birds, has justified the expenditures for this work. This activity has become such an important phase of our program that we have deemed it wise to change this staff service, effective this date, to the Bureau of Research and Information.

Special conferences of our field employes and office staff were held at Conneaut Lake on August 4, 5 and 6, 1924, and at Williamsport on July 13, 14 and 15, 1925. Both of these conferences were unusually beneficial, and have aided in better coordinating field activities, with a marked improvement in the field work.

The present rigid standards of qualification and competitive examinations required in the selection of all field officers have made it possible to improve the field personnel. New appointees are producing a higher grade of service than heretofore possible. As a result of the better average type of officers obtained by this method, the sportsmen of Pennsylvania are cooperating with the field employes in a very splendid manner.

## LEGISLATION

The most important 1925 legislation was the acceptance by the Board of the responsibility of changing seasons and bag limits, and declaring special seasons as may be necessary to maintain a proper supply of game or to dispense with surplus game. This legislation is in accord with modern practices in game administration, and while it places considerable additional responsibility upon the Board, it authorizes such immediate changes as may be necessary to save game from extermination, or to remove surplus game where the food

supply is not properly balanced and such game is becoming destructive to private property, or to save the breeding stock.

Another very important piece of legislation was the result of recommendations growing out of investigations and conferences between sportsmen, farmers and fruitgrowers, dealing with the deer damage problem. These investigations and conferences were sponsored by the Board.

This legislation, together with a more concerted effort to secure proper observance of an act punishing persons who discharge firearms in close proximity to occupied dwellings or destroying personal property while hunting, have brought about a better understanding between sportsmen and land-owners generally throughout the state. Even though the deer legislation has not accomplished all that was anticipated, decided progress in the right direction has been possible thereunder.

The new law simplifying the establishment and management of game refuges, the law protecting young bucks and baby bears, and the law establishing state bag limits for migratory wild waterfowl have all been helpful in improving conditions.

Taken as a whole, the 1925 legislation has been an important forward step. The Board recommends that future changes in the Game Code be restricted to imperative needs only. The new Code and its several amendments are now working out satisfactorily and frequent changes in the law are not conducive to law observance.

## GAME CONDITIONS

Game conditions throughout the state have been quite satisfactory during the past two years, although some species

have not shown the increase desired. Weather conditions in the spring and summer months of 1924 were largely responsible for an unsatisfactory season for small game. Conditions were much more favorable during the rearing season of 1925, and sportsmen report a more satisfactory season throughout.

Large game continues to increase rapidly. The deer situation is still a serious problem. Indications are that the only way to curb depredations to farm crops and orchards, and balance the sexes and the food supply, will be to reverse the season on deer for one year and protect all bucks with visible antlers, allowing a short season for female deer. Such season should be governed by the general law as to methods of taking deer, bag limits, etc. There will doubtless be much opposition to a plan of this kind, principally for sentimental reasons which should not be permitted to interfere with the judicious administration of wild life.

The 1924 season resulted in the largest kill of male deer and black bears ever recorded in Pennsylvania. Weather and food conditions were not so favorable in 1925, and the kill of both deer and bears was materially reduced. The new law protecting young deer and baby bears has met with universal approval and will improve the future sport.

From careful studies made, we believe turkeys must be given absolute protection for at least a year. Many sportsmen residing in turkey counties have requested the Board to close such counties, believing this action is necessary to guarantee a future supply of turkeys. The Board has deemed it wise to close the season for turkeys during 1926 throughout the state rather than close a few counties only.

Ruffed grouse were adversely affected by the unfavorable hatching and rearing season of 1924, and have not increased

sufficiently to warrant a thirty day open season throughout the state. Sportsmen in the northeastern and northwestern sections of the state have urged the Board to close those sections entirely to grouse, while in other parts of the state indications are that there are sufficient birds to justify the regular open season. Rather than close large areas and crowd the grouse hunters into sections which are now supplied with a fair number of birds, the Board has decided the fairest method to all concerned is to allow a season of only the first two weeks in November for 1926, and reduce the season bag limit from fifteen birds to ten birds.

Ringneck pheasants have increased satisfactorily, but we are satisfied these birds cannot continue to increase with a thirty day open season. Many sportsmen have urged that shooting for ringnecks be permitted only one or two days per week. In view of the action taken on ruffed grouse, the Board has decided to reduce the 1926 season for male ringneck pheasants to the first two weeks of November.

The supply of rabbits was unsatisfactory during the fall of 1924, but during 1925, with more favorable weather conditions, rabbits showed a fair increase, and rabbit hunters were much better pleased with the 1925 season. Varying hares have responded to the protection afforded through vermin control activities, but are not as plentiful as they should be. The average kill for cottontail rabbits per hunter in 1923 was  $9\frac{1}{3}\%$ , but by 1924 it had fallen off to less than 6 rabbits per licensed hunter. In 1925 the kill was about  $6\frac{3}{4}$  rabbits per hunter. Rabbits have not increased sufficiently to warrant a forty-five day season. Tracking snows during December usually result in the killing of a large number of rabbits that should be spared for breeding purposes the following year. In addition to the need for more protection, there is much ob-

jection among hunters to extending the season for small up-land game into the deer season. Taking all these factors into consideration, we have decided to reduce the 1926 season for rabbits and hares to the month of November only.

The total kill of game in 1924 was 5,519 tons, and in 1925, a total of 5,489 tons of game of various kinds was taken in Pennsylvania.

The Board is convinced that the game must be safeguarded in every possible way in order to guarantee a future supply, and that special attention must be given to Pennsylvania's small game. To this end, steps have been taken to give small game further protection, even at a sacrifice to certain protection heretofore given to our large game.

### GAME RESTOCKING AND FEEDING

More than \$275,843.44 has been expended during the biennium for the purchase and feeding of game, exclusive of all of the expenditures on game refuges, which in reality are game propagating areas, and the traveling expenses of field officers in the distribution and feeding of game.

The amount spent for game purchased has been considerably larger than during any similar period in the history of the Board. Purchase of deer for stocking purposes has been discontinued, and all of the funds that can be devoted to game purchases are being used to replenish our supply of small game. The big difficulty, however, is to secure native game birds, such as wild turkeys and ruffed grouse in quantities.

For the first time in the history of the Board, steps have been taken to stock Hungarian partridges, which birds have done splendidly in a number of western states and Canadian provinces. From studies made by the President of the Board

and our Executive Secretary, we are convinced that these birds will thrive in Pennsylvania and will withstand our severe winters much better than will our native bobwhite quail. We find Hungarian partridges do not lend themselves to wide distribution in small numbers, and stocking must be confined to segregated areas. We have closed the entire state to the hunting of these birds for 1926, and if desirable will take action to give them further protection next year.

## **REFUGES AND PUBLIC HUNTING GROUNDS**

The Board has been extending the Pennsylvania refuge system as rapidly as funds will permit. We have now acquired a total of 86,019 acres by purchase, and have under control by lease 102,596 acres additional for regular and auxiliary game refuge purposes. Of this area 30,732 acres have been acquired since this Board took office. In addition we have contracted to purchase 13,000 acres. The total area now set aside for refuges in Pennsylvania on state forests and on lands purchased or leased by the Board for refuge purposes is 102,265 acres.

Many additional applications for the establishment of refuges are pending, especially for auxiliary refuges, which may be created in practically every section of the Commonwealth. To make possible the creation of such auxiliary refuges, owners of lands simply lease the hunting rights to the Board for a term of years.

The refuge work is being advanced as rapidly as present funds will permit. All of the refuges and land adjacent under the control of the Board are being protected by modern methods. Many roads and trails have been built during the past two years, and the refuge property in general has been improved.

Other states are adopting the Pennsylvania refuge system, because they are convinced by the results obtained in Pennsylvania that this is the most desirable method of perpetuating wild life.

### **VERMIN CONTROL**

Enlarging the scope of our former bounty division into a constructive system of vermin control has been fully justified. During the two fiscal years, \$156,468 has been spent for bounties alone. A total of 39,780 separate bounty claims were handled by the Bureau of Vermin Control, and constructive vermin control campaigns have been fostered wherever possible. Sportsmen are asking that additional vermin control work be undertaken by the Board. In many instances they request special assistance of expert paid trappers, also an increase in bounties on animals of various kinds. It is doubtful whether an increase in bounties is justified, but additional assistance of paid trappers in remote sections would be helpful. However, everything possible is being done to this end with funds now available.

The wisdom of the vermin control system is shown by the fact that the annual value of the fur produced in Pennsylvania is from \$2,500,000 to \$3,000,000.

### **HUNTING LICENSES AND ACCIDENTS**

In 1924, a total of 499,938 resident and non-resident hunters' licenses were issued. Last year, due to the anthracite coal strike and numerous other causes, also to a more favorable season for rabbits, the total number of resident and non-resident hunters' licenses increased to 525,044. By including the landowners and the members of their families who may hunt legally without licenses, Pennsylvania is now the host to fully 600,000 hunters each year. This is said to be one-tenth of all the hunters in the United States.

Regardless of special efforts to reduce the hunting accidents in 1925, a total of 52 fatalities and 229 non-fatal accidents resulted. The year previous, there were 38 fatalities and 131 non-fatal accidents. It is important to know that more than half of the fatal accidents were self-inflicted, and that most of these accidents occurred while hunting small game. How to overcome such gross carelessness is indeed a serious problem. We propose bending every possible effort to reduce hunting accidents in Pennsylvania, and sportsmen's organizations have indicated a desire to cooperate to this end to the maximum of their ability.

## FINANCES

From the financial statements of our secretary, attached, it will be noted that during the biennium the net revenue from hunters' licenses amounted to \$1,280,365.72, and deposits from penalties, costs and other sources were \$132,269.16, or a total of \$1,412,634.88.

Expenditures from the game fund during the biennium for all purposes were \$1,480,384.63. The balance in the treasury, exclusive of the vouchers in the course of settlement, to the credit of the Game Fund on May 31, 1926 was \$209,388.46.

A subdivision of the various purposes for which funds were expended during the biennium shows the following:

Protection of game, including maintenance of the Bureau of Protection and field organization for law enforcement, educational activities, and feeding of game.....	31.6%
Game propagation, including purchases or lease and maintenance of game refuges.....	21.9%

Restocking game, including purchase and expre- sage of game and expenses in connection with game distribution.....	21.5%
Vermin control, including the payment of bounties, trapping instructors, educational activities, etc....	15.9%
Property damage, including cost of erecting deer- proof fences and damages paid for property de- stroyed by bears.....	2.2%
Administration, including maintenance of general of- fice organization, office supplies, general educa- tional activities and a proper share of all printing, postage, telephones and other administrative ex- penditures.....	6.9%

Our budget for the coming fiscal year will utilize all of the funds now to our credit in the State Treasury, and the estimated income during the year, with a sufficient balance to carry on the work until the fall of 1927 when additional funds will become available.

The demands for more assistance in law enforcement, more restocking of game, more game refuges and an extension of the vermin control activities far exceed available revenues. The Board is endeavoring to devote the available funds to such purposes as will produce the best possible results.

## ACCOMPLISHMENTS

Since the present Board was organized, the following outstanding accomplishments have been attained:

1. The Board's activities have been reorganized and better systematized throughout, and the sportsmen of Pennsylvania are cooperating with the Board better than ever before.

2. The field work has been coordinated and responsibility definitely fixed for each function. Rigid standards of qualifications for field employes have been adopted, and only capable men who will discharge their duties in an efficient, impartial manner are now selected by competitive examination for field service.

3. A Bureau to conduct the general educational and research activities of the Board has been established. Motion pictures, lantern slides, bulletins, leaflets, and other educational material have been prepared and made available to the public. As a result of this effort, the people of Pennsylvania understand more thoroughly the value of wild life protection and the work of the Game Commission.

4. An honest effort has been made to relieve private property from depredations by game, particularly deer, and to bring about better understanding between landowners and sportsmen. A special effort has been made to protect private property against destruction by careless hunters by revoking licenses and aiding to prosecute such persons wherever sufficient evidence is obtainable.

5. Almost 31,000 acres of land have been purchased and added to the lands under the control of the Board for refuges and public hunting grounds, at a cost of \$85,843.47. Two new regular game refuges have been established, and two additional tracts containing 13,000 acres have been contracted for purchase.

6. Fifty-one new auxiliary game refuges have been established or leases negotiated and tracts ready for the establishment of desirable refuges.

The entire refuge system has been extended and improved as rapidly as possible.

7. Special attention has been given to the improvement of the Board's properties, especially to improving the desirability and surroundings of Refuge Keepers' homes.

8. Game has been purchased and distributed for stocking purposes in considerably larger quantities. During the past two years \$275,843.44 was expended for purchasing and feeding game.

9. Vermin control and feeding activities have been greatly extended in an effort to give native game more protection.

10. The efficiency of the Commission's administrative organization has been greatly improved by a careful reorganization of its office staff, which is now securing maximum results with minimum expense. Some of the former positions were eliminated and others were created, and modern business methods have superseded former practices. The administrative staff, in addition to the Executive Secretary and the general office employes, now consists of the Bureau of Refuges and Lands; the Bureau of Protection; the Bureau of Vermin Control; and the Bureau of Research and Information.

Respectfully submitted,

H. J. DONALDSON,

*President*

JARED M. B. REIS,

*Vice-President*

ADOLF MULLER

FRANCIS H. COFFIN

FRANKLIN G. McINTOSH

RICHARD E. REITZ

Attest:

J. B. TRUMAN,

*Executive Secretary*

May 31, 1926.

*Members of the Board of Game Commissioners,  
Commonwealth of Pennsylvania,  
Harrisburg, Pennsylvania.*

Gentlemen:

I beg to submit the following detailed report covering various activities during the past two years. Important matters incorporated in various special reports to you are herein included in order that such information may be made available for general distribution to the sportsmen of the state.

The activities of the Board have advanced more rapidly during the past two years than during any previous like period. This is due not only to a better working organization throughout but to a more general interest among the sportsmen in helping to build up and restore the wild life resources of Pennsylvania. Hundreds of our citizens, many of them not directly interested in hunting, have taken a deep interest in the work, and especially in the protection of beneficial wild birds.

The general activities of the Board have increased very rapidly in an effort to keep pace with the demands of the sportsmen. The administrative duties are constantly increasing. The correspondence handled by the office now requires more than 30,000 letters each year exclusive of a large number of circular letters. In addition, there are many thousands of inquiries for literature of various kinds. This desire to cooperate closely with the Board indicates a healthy sentiment among the citizens of the state generally, and future conditions will be much improved as a result of this cooperative spirit.

## LEGISLATION

The game code passed in 1923 has stood every test remarkably well and has worked out very satisfactorily. A number of other states have used this code as a model in redrafting their game legislation. The people of Pennsylvania now seem to have a better grasp of the laws protecting game, fur-bearing animals and wild birds than ever before. Organized sportsmen have made a close study of the 1923 game code with possible improvements in mind to meet changing conditions, and very few changes have so far been recommended.

The principal changes made in the law by the 1925 session of the Legislature are as follows:

1. The Game Commission was given power to remove game, declare open seasons or extend seasons as necessary to relieve game depredations. The Board was also given power to shorten seasons, reduce bag limits, or close seasons entirely as may be necessary to guarantee a future supply of game. This broad administrative power vested in the Board is in keeping with modern practices in game administration.

2. The law permitting landowners to protect their property from game depredations was clarified, and the Board was authorized to designate sections of the state where depredations from game, especially deer, are serious. In such sections landowners suffering damage may retain the carcasses of deer for food. The penalty for failure to comply with these features of the law is more specific and effective in curbing improper killing.

3. The deer-proof fence law was amended to provide an alternate plan under which the Board may furnish the wire and staples and the landowner supply the posts and erect the fence instead of each bearing fifty per cent of the cost of the complete fence.

4. The law governing special seasons for deer in sections where such animals are too plentiful was modified, and the fee for special licenses was reduced from \$5.00 to \$2.00, with a provision under which landowners and their regular employes may secure licenses without charge to hunt on their own lands when such lands lie within territory opened. Another amendment permits killing any deer during such special season except one with visible antlers, instead of large females only, which proved impracticable.

5. If mistakes are reported immediately, persons killing game or fur-bearing animals by mistake may now have returned one-half instead of one-fourth of the penalty as heretofore.

6. All young bucks were protected until they have two or more points to one antler. Baby bears were protected during their first year, and the bear season changed to open on November 10 instead of November 1.

7. The closing day for the raccoon season was set at January 15 instead of February 15.

8. No bag limit changes were made except a reduction in the season limit on rabbit from 40 to 30, and the establishment of state bag limits on wild waterfowl of 15 ducks per day and 60 per season; and 5 each per day on wild geese and brant, and 30 each per season.

9. The auxiliary refuge law was modified so that auxiliary refuges may now be established within two miles instead of within five miles of another auxiliary or regular refuge as heretofore. Leases may be cancelled under certain conditions. Lands may be used for auxiliary refuges and public hunting grounds without interference with the operation of such lands for all other legitimate purposes.

10. Special protection was accorded to dogs used under special permits from December 16 to March 15 for the purpose of destroying foxes and wild cats, which permits may be issued by the Board without charge.

11. The law stipulating the purposes for which the game fund may be expended was clarified and provision made for the payment of all printing, office supplies, furniture, and all other office equipment used by the Board.

12. Continuous appropriations of \$3,000 annually to pay for damages done by bears, and \$10,000 annually to assist landowners in erecting deer-proof fences were provided.

13. The Board was definitely committed to continue the purchase, propagation, distribution and feeding of game to the extent of \$100,000 or more a year.

The amendments made to the game code by the 1925 Legislature have met with almost universal approval by the sportsmen, and especially by the farmers and fruitgrowers of the state.

Some sportsmen who have not understood the underlying reasons for these changes, especially with reference to killing game when destroying crops, have protested bitterly, but when the reasons for the changes were thoroughly explained and the results studied they have invariably approved of the changes made. Other changes made for the purpose of improving relations between sportsmen and landowners and relieving depredations from deer, have so far worked out quite satisfactorily. More time will be necessary before a final conclusion on the wisdom of these changes is possible. Protection for spike bucks and baby bears has been approved by sportsmen everywhere.

Changes in the law relative to deer-proof fences, the auxiliary refuge law and special protection accorded to dogs used to destroy vermin are all serving their purposes very satisfactorily.

## LAW OBSERVANCE

Pennsylvania hunters as a group, even though not all strictly observing the law, hold the envious position of being the most law-abiding sportsmen in the United States. Taking it as a whole, the game law is being better observed than anywhere else in the country. It has frequently been said that if all laws in Pennsylvania were as well observed as the game laws, conditions in general would be decidedly better.

This spirit of law observance has been brought about by a number of factors. Among them are:

A simplified law easily understood and observed.

Activity on the part of many sportsmen's organizations throughout the state.

Educational publicity of various kinds, in which the press has aided in a material way.

The effective work of the Game Commission's field organization.

The field organization is better coordinated and more effective than ever before, and is more truly representative of the Board's policies and desires throughout. The present system of selecting all field officers by competitive examination has already produced notable results, and the sportsmen are cooperating with them in a manner never before obtainable. This method of selecting officers for field duty should be continued and strictly adhered to, thereby laying the foundation for a still better field force in the years ahead.

Even though a splendid spirit of law observance prevails, a goodly number of violation reports and prosecutions are passing through the hands of the Bureau of Protection annually. The number of cases successfully prosecuted varies considerably from year to year. In 1920, a total of 1,895 prosecutions passed through our hands, while in 1922 almost 3,000 separate cases were handled. During the fiscal year of 1925, there were 2,207 prosecutions, of which 238 were violations of the fish law prosecuted by Game Protectors in cooperation with the Board of Fish Commissioners. During the past fiscal year there were 2,346 prosecutions, of which 212 were for violations of the fish law.

Fortunately, the type of game law violations has changed considerably during the last ten years. At the beginning of the present decade a large percentage of the prosecutions were for the illegal killing of deer, killing game in close season, killing game in excess of the bag limit, or violations of the law protecting song and insectivorous birds. At the

present time these violations are in the minority, and a goodly share of the prosecutions now brought are for what might be termed minor violations, brought about by carelessness or indifference, including owners allowing dogs to chase game during the close season, aliens being possessed of firearms or dogs, and other similar violations of a minor nature.

The percentage of major violations is decreasing annually. This is due in a large measure to the fine spirit of law observance among the sportsmen generally, but the revocation of hunters' licenses and denying such persons the right to secure a license or to hunt for a period of one, two or three years for major violations has deterred many persons from violating the game laws. Since 1921, when this revocation law first became effective, the Board has revoked a total of 389 licenses out of a possible total of more than 12,500 persons whose licenses could have been revoked. During the past two years, 109 persons were denied the right to hunt or secure a license.

It is self-evident from the limited number of persons affected that the Board has been using this power to revoke licenses very judiciously. It has been a most effective remedy, as it places all hunters on the same level regardless of their financial, social or political standing. Men of means, but lacking the essentials of good sportsmanship, no longer violate the game law with impunity because they can readily pay a fine, while those in moderate circumstances hesitate to violate the law lest the right to hunt will be denied them.

Most hunters are true sportsmen and try to observe the spirit and letter of the law without compulsion of any sort. Those who cannot be classed as good sportsmen are very frequently held in check through fear of punishment, the most potent of which is prosecution and denial of hunting privileges.

## REFUGES AND HUNTING GROUNDS

This phase of the Board's activities has grown enormously, and could be increased rapidly if sufficient funds were available to enlarge this work as the sportsmen of the state desire. In order to handle the various refuge projects in a modern, businesslike manner, it has been necessary to build up in the Bureau of Refuges and Lands a staff with proper technical training and experience to handle the large amount of property now under the jurisdiction of the Board. Practically all phases of real estate acquirement and management are involved.

*Regular Refuges:*

There are now thirty-four permanent refuges established. Twenty of these are located on State Forests; eleven on lands purchased by the Board; and three are on lands leased for that purpose. A special effort is being made to acquire by purchase the remaining three which are under lease. It is quite probable that one of the refuges under lease will be purchased by the Federal Government in connection with the Allegheny National Forest.

The eleven tracts of land purchased to date comprise a total area of 86,019.22 acres at a total cost of \$245,015.92, or an average of slightly more than \$2.84 an acre. This cost is exclusive of title examinations and surveys. The largest of these eleven tracts is the Donaldson State Game Lands in Sullivan County containing 12,522.4 acres, while the smallest tract, purchased in 1923 and located in Jefferson County, contains 3,471 acres.

During the past two years purchases have been made as follows:

State Game Lands No. 14, a tract under lease in Cameron County since 1915 and contracted for in 1923, containing 9,124.25 acres, was purchased at a total cost of \$22,810.63. Considerable difficulty was experienced in getting the titles clarified. The title examinations on this property cost \$656.86 and survey and boundary lines cost \$1,504.66. The refuge had been established in 1915.

During the past year purchase of State Game Lands No. 33, Centre County, contracted for in 1920, has been completed. This tract contains 8,538 acres and cost \$23,429.25. The cost of title examinations on this tract was \$514.25, and the cost of surveying and establishing boundary lines amounted to \$931.40. The refuge was established in 1925 at a cost of \$457.50.

State Game Lands No. 34 were contracted for during 1924 and purchase completed in December of the same year. The area of this tract is 8,800 acres. The cost was \$26,400, title examinations cost \$531.69, and surveying and boundary lines cost \$845.76. The refuge was established during 1925 at a cost of \$1,405.86, or about \$185 a mile. The apparently excessive cost of surveying and establishing this refuge was due to the fact that it was very remote from habitation and much cutting was necessary to remove brush, innumerable old logs and other inflammable material to reduce the fire hazard.

For your information I give below table showing the number, location, area, and year of establishment of the present regular refuges, as follows:

Name and Number	County	Year Established	AREA (Acres)			Purchase Price	
			In the Refuge	State Game Lands			
				Leased	Purchased		
Penrose 1	Clinton.....	1905	2002		On State Forest		
Kennedy 2	Clearfield.....	1906	3107		On State Forest		
3	Franklin.....	1906	1989.9		On State Forest		
4	Perry.....	1911	1864		On State Forest		
Phillips 5	Westmoreland.....	1911	1740		On State Forest		
6	Centre.....	1912	1265.8		On State Forest		
7	Potter, Clinton and Lycoming.....	1915	2460		On State Forest		
8	Lycoming.....	1915	1785		On State Forest		
9	Huntingdon.....	1915	2646		On State Forest		
Trexler 10	Carbon.....	1915	1900	9754			
11	Lackawanna.....	1915	2774	On State Forest			
12	Bradford.....	1915	2106	7492.9		\$18,732.25	
Donaldson 13	Sullivan.....	1915	3027		12522.4	42,576.25	
Kelly 14	Cameron.....	1915	2507		9124.25	22,810.63	
15	Potter.....	1916	3434		On State Forest		
16	Tioga.....	1916	3970		On State Forest		
17	Potter-Cameron.....	1916	2802		On State Forest		
18	Mifflin-Juniata.....	1916	2900		On State Forest		
19	Wyoming.....	1917	2100	6538.6			
20	Bedford.....	1917	2196		On State Forest		
Worden 21	Dauphin.....	1918	1849		On State Forest		
22	Union-Centre.....	1918	2130		On State Forest		
23	Huntingdon.....	1918	1896		On State Forest		
24	Forest-Clarion.....	1918	2500	5659			
25	Elk.....	1920	1346		6288.5	17,293.52	
26	Bedford, Blair and Cambria.....	1921	1727		6874.34	28,372.05	
27	Cumberland.....	1920	1409		On State Forest		
28	Elk-Forest.....	1920	2622		9142.7	22,856.67	
Kalbfus 29	Warren.....	1921	2369		8718.51	23,085.03	
30	McKean.....	1923	2874		5046.23	10,791.80	
31	Jefferson.....	1923	655		3471.39	8,678.47	
32	Huntingdon.....	1921	1393		On State Forest		
33	Centre.....	1925	2904		8538.	23,429.25	
34	Clearfield-Elk.....	1925	2068		8800.	26,400.00	

In addition to refuges established, the Board now has under contract for purchase approximately 7,000 acres on the Blue Mountain in Lehigh, Carbon and Schuylkill Counties, contracted for in 1924, and approximately 6,000 acres in northeastern Susquehanna County, contracted for in 1925. Titles on both of the tracts under contract for purchase are being examined and surveys completed as rapidly as possible. Complete options for a number of other tracts under consideration are not yet available.

*Auxiliary Refuges:*

The auxiliary refuge program is advancing quite satisfactorily. Some of the most serious obstacles in securing hunting rights on private lands upon which to establish auxiliary refuges have been as follows:

1. Control by the Board of the hunting rights on lands adjacent to the refuge, which should in every instance be required to guarantee public hunting on surrounding territory.
2. Leasing of the hunting rights without remuneration. Up to this time no rental has been paid for lands for use in connection with auxiliary refuges. Most landowners feel that the establishment of an auxiliary refuge on their property is a valuable asset and helps them to protect the property. It appears that more of the landowners in the western part of the state desire rental for suitable lands than is true elsewhere.
3. Landowners frequently object to leasing their lands because the law does not give owners the right to cancel leases at will while the Board may cancel leases under certain conditions. Even though the Board has given assurance that they will cancel leases upon receipt of reasonable requests, this feeling continues.
4. Obtaining a fairly accurate description of the lands to be leased for auxiliary refuge purposes has been difficult but should in all instances be required to identify lands adequately, especially since violations of the refuge law may involve court litigation. Suitable maps are made up and become a part of all auxiliary refuge agreements.

To date a total of 61 auxiliary refuges have been arranged for; 16 of these will be located on State Forests; 14 on lands owned by corporations; one on property belonging to a borough; and the others on property of associations or individuals.

The cost of establishing auxiliary refuges varies greatly. Much depends upon their distance from habitation, the area and type of country in the refuge, growth on the ground, availability of old roads for boundary lines, local labor conditions, and many other factors.

To date figures are complete on the cost of establishing thirty-two auxiliary refuges, from which we find that these cost an average of \$164 each, exclusive of time devoted to the work by regularly employed officers and the cost of refuge signs.

The auxiliary refuge program is meeting with universal approval among the sportsmen and is the best protection that can be given to game in sections of the state where it is not desirable to establish the

large regular refuges. Auxiliary refuges are particularly desirable for the protection and increase of wild turkeys, grouse, squirrels and other small game. The sportsmen of Pennsylvania are anxious to have a number of these refuges established in every part of the state just as quickly as possible. Unfortunately, the funds available for this purpose each year are limited, and it will require a number of years to establish a sufficient number of these auxiliary refuges at the present rate of progress to meet the demands of the sportsmen.

## MANAGEMENT OF REFUGES AND LANDS

The management of the permanent refuges is running along smoothly, and the work is being developed and extended as rapidly as possible. Under the present plan of handling all engineering, construction, reforestation, and other more or less technical matters direct from the Bureau of Refuges, more satisfactory results are obtained throughout. While this method imposes more work upon the technical assistants in the office, the accomplishments fully justify the change in procedure.

### *Buildings:*

During the year two new Refuge Keeper's homes were constructed—one on State Game Lands No. 33 near Philipsburg, and one on State Lands No. 34 on the headwaters of Mosquito Creek. Both of these buildings are well constructed, and will supply desirable homes for the Keepers on these refuges. The house occupied by the Refuge Keeper on Refuge No. 23, Huntingdon County, was remodeled and put in livable condition.

Living quarters at a number of the refuges established prior to 1918 are not very desirable. The houses were cheaply constructed and are constantly in need of repair. In many cases outbuildings are in poor condition. All such houses should be rebuilt as fast as funds will permit. Comfortable homes are necessary to retain the most desirable men and their families on the various refuges, many of which are remote from habitation.

Steps have been taken to improve the surroundings of all Refuge Keepers' headquarters by clearing, grading, and planting with suitable grass and shrubbery. All unserviceable and unsightly buildings and equipment are being disposed of as rapidly as possible.

Every refuge is connected by telephone, thus affording contact with the field officers as well as enabling Refuge Keepers to secure assistance in any emergency.

*Roads and Trails:*

The system of roads to the refuges and trails for protection against fires has greatly improved. In case of emergency assistance may be obtained much more quickly and destruction by forest fires can be reduced to a minimum.

These roads and trails are of assistance in winter game feeding, vermin control, and general administration, and will later be helpful in removing forest products.

The road leading to the Worden Refuge in Dauphin County has been in very bad condition, but will be improved during the coming summer with an appropriation made for that purpose. The road leading to Refuge No. 25, Elk County, is almost impassable in the springtime and will require a considerable expenditure to put it in passable condition. The road to the Kelly State Game Lands in Cameron County should be relocated and improved in the near future.

Road and trail construction work is a permanent investment and should be given as much attention as funds permit.

*Refuge Lines:*

During the biennium a special effort was made to improve the location of refuge lines by changes that will be permanently advantageous. The location of the refuge on State Game Lands No. 14, Cameron County, was shifted materially to provide more desirable game conditions within the refuge, and to facilitate maintenance of the refuge line. The line around Refuge No. 12 in Bradford County was changed to eliminate some of the less desirable territory and to improve the refuge boundary line.

*Reforestation and Food Planting:*

A special effort has been made to improve food and cover conditions at all refuges. During the spring of 1925, 103,866 trees and shrubs were planted by the Refuge Keepers, mostly without assistance. During the spring of 1926, Refuge Keepers planted 133,196 trees and shrubs. Of this number, 131,000 during 1925 and 1926 were seedlings furnished from the State Forest nurseries. To aid in improving food and cover conditions elsewhere throughout the state, the Bureau of Refuges and Lands supervised planting almost 21,000 additional trees and shrubs last year, most of these being foodbearing varieties.

During the spring of 1925 quite a large quantity of wild rice, celery, and other seeds and tubers was purchased and distributed for planting purposes in suitable streams, ponds and lakes in forty-nine different

locations in twenty-eight counties to supply more food for wild water-fowl. This was the first extensive planting of this kind attempted in the state, and while largely experimental, the results obtained were fairly good. This planting was reported to have averaged from 41% to 54% successful. In several instances failure was said to be due to seeds and tubers being eaten by carp or muskrats. Other failures were doubtless due to improper care of material before planting as well as placing in unsuitable waters. Due to lack of funds no extensive planting of this type was attempted this spring. Additional water-fowl-food planting should be done at the first opportunity.

A special game-food nursery was established in 1924 at Refuge No. 3 South Mountain, where such varieties as dogwood, wild black cherry, viburnum, mountain ash, walnut, hickory, oak, and others of similar value in supplying game-food were planted. This nursery is coming along quite well and will meet part of the need for berry-bearing bushes which supply more food for small game, particularly in the refuges. Special attention should be given to food-bearing shrubs, as seedlings of the nut-bearing trees can usually be obtained from the Department of Forests and Waters or gathered where abundant in the forest and transplanted.

#### *Control of Forest Fires:*

Forest fire conditions were exceptionally bad during the fall of 1924, and for the first time in the history of the Commonwealth the state was closed to hunting by proclamation of the Governor. While this was the first time such a drastic step was taken in Pennsylvania, and the ban was in effect but a few days, it did more to impress the people of the state with the urgent necessity for preventing and controlling forest fires, than did the educational efforts of the several state agencies during an entire year. Hunters almost universally obeyed the Governor's proclamation and but comparatively few arrests were necessary.

Governor Pinchot, hoping daily for rain, delayed taking action until the day before the opening of the general hunting season on November 1, and then lifted the ban as soon as safe to do so. Sportsmen approved the action taken, their only criticism being that it was not taken sooner and for a definite period, instead of being dependent upon rainfall sufficient to make the forests safe.

During the spring and fall of 1925 conditions were quite favorable and forest fires were limited in number. The area burned over was small in practically every instance. During the spring of 1926, forest fires have been exceptionally difficult to control. Our various officers have done their utmost to aid the Department of Forests and Waters in this work.

Beginning with January, 1925, an accurate record has been kept of such assistance rendered by our several officers. During 1925 the Game Protectors and Refuge Keepers devoted 7,300 hours to actual forest fire fighting, and incurred expenses amounting to a little over \$400 which was paid from our funds. The fires at which our officers assisted during 1925 burned over an area of approximately 31,348 acres. A total of but 117 acres of State Game Lands was burned over in 1925 as follows:

State Game Lands No.	Location	Acres Burned
26 .....	Blair County.....	10
28 .....	Elk County.....	2
25 .....	Elk County.....	30
29 .....	Warren County.....	75
	Total.....	117

From January 1st to May 31, 1926, our officers have devoted a total of 2,045 hours and have incurred expenses to the Game Commission amounting to \$406.95. They have assisted in controlling 140 fires, which burned over a total area of approximately 108,789 acres. Fires at State Game Lands this spring have occurred as follows:

State Game Lands No.	Location	Acres Burned
28 .....	Elk County.....	1,793½
30 .....	McKean County.....	25

## DEER-PROOF FENCES

Deer-proof fences have been erected in a number of localities where surplus deer have caused considerable damage to orchards, farm crops, and commercial truck-patches. Unfortunately owners of many of the smaller farms have not taken advantage of this protection. In several instances these owners were apparently unable to take advantage of the opportunity to obtain deer-proof fences, while others hesitate to fence their property and crowd all the surplus deer over upon their neighbors, thereby causing the deer to inflict much more damage to the crops of such neighbors.

Under the fence-law as it existed prior to March 30, 1925, the Commission erected fences in cooperation with the owner and each paid half of the cost. Since March 30, 1925, the new law has authorized the Board to furnish the wire and staples, and the owner to furnish the posts and labor necessary to erect the fence. This modified fence-law has been especially helpful to small landowners. While \$10,000 a year is now available for this fencing work, this method of relief is insufficient to meet the many demands or prevent damage to private property in almost half the counties of the state, where material damage is now being done by deer.

During the biennium deer-proof fences have been erected as follows:

**BIENNIAL JUNE 1, 1923 TO JUNE 1, 1925**

For Whom Built	Location		Number of Rods	Cost to Game Commission
	County	Township		
S. L. Baltzley.....	Adams	Hamilton	237	\$302.26
Philip Haler.....	Adams	Franklin	140	212.37
H. D. Lewis.....	Adams	Franklin	20	28.50
J. E. Reisner.....	Cumberland	Southampton	690	1,019.42
Total.....			1,087	\$1,562.55

**FISCAL YEAR JUNE 1, 1925 TO JUNE 1, 1926**

For Whom Built	Location		Number of Rods	Cost of wire and staples
	County	Township		
Fred C. Bikle.....	Franklin	Greene	190	\$282.76
D. Maurice Wertz.....	Franklin	Quincy	114	169.59
Mont Alto Orchard.....	Franklin	Gilford	580	856.87
W. R. Knely.....	Luzerne	Black Creek	220	326.80
Francis Drachbar.....	Adams	Menallen	130	194.04
U. T. Gardner.....	Cumberland	Southampton	335	500.03
E. N. Meals and D. C. Worst.....	Cumberland	Penn	450	661.57
Carey E. Black.....	Cumberland	Penn	30	43.62
W. A. Seavers.....	Cumberland	Penn	110	159.94
John L. Williams.....	Cumberland	Penn	55	79.97
Ezra L. Williams.....	Cumberland	Penn	35	50.89
W. A. Woods.....	Cumberland	Penn	30	43.62
A. E. & C. A. Brough.....	Cumberland	Penn	385	559.79
W. A. Weakley.....	Cumberland	Penn	30	43.62
William A. Davies.....	Cumberland	S. Dickinson	100	151.08
John A. Runk.....	Huntingdon	Porter	740	1,030.84
Norman Shallenberger.....	Juniata	Fayette	100	155.85
D. Maurice Wertz.....	Franklin	Washington	330	503.95
Henry Meyer.....	Centre	Miles	360	548.86
Floyd C. Graybill.....	Snyder	West Perry	250	388.74
Jacob E. Malzi.....	Perry	Toboyne	280	454.16
E. C. Summerson.....	Lycoming	McHenry	392	621.74
Amos S. Korb.....	Clearfield	Bloom	540	794.09
J. W. Rearick.....	Franklin	Green	320	298.74
C. J. Byler.....	Mifflin	Union	253	400.21
S. W. Fletcher and A. F. Mason.....	Blair	Snyder	315	471.04
Total.....			6,674	\$9,792.42
		Staples on hand in storeroom.....		17.45
		Balance in fund.....		190.13
				\$10,000.00

**VERMIN CONTROL**

The results obtained more than justify the Board's action in broadening the scope of the activities in the Bureau of Vermin Control. The State has been systematically covered by the Trapping Instructors, and their work has been of material value. Many trappers who heretofore were not successful in ridding their localities of game destroying animals have been doing effective work. A large number of new trappers have joined the ranks and in a large portion of Pennsylvania quite

effective vermin control work is now being done. There are a number of remote sections where more intensive efforts must be put forth to trap vermin systematically if game is to be given a chance to produce a maximum increase.

Many sportsmen believe that the only way to encourage trappers to spend the necessary time in these remote sections to control vermin is to increase the rate of bounty paid, particularly on wild cats and gray foxes. After a thorough study of the general situation, the Chief of the Bureau of Vermin Control is satisfied that an increase in bounty is not needed, and that such increase in itself would not be effective in controlling vermin in remote forest areas. Many sportsmen who have studied the matter join in this belief. An increase in bounty is not so necessary as more careful study of the problems involved in certain districts, more cooperation from sportsmen who hunt in such sections, and in some instances, the assistance of a paid trapper for a limited period.

Some localities not close to habitation, in which game destroying animals and birds are taking a large share of the annual increase of beneficial wild life, are uncontrolled and should be given special attention. This is true particularly in various mining sections as well as in several industrial districts. In such cases the workers are engaged in a special line of activity during a fixed number of hours daily, and are either unable or unwilling to devote time to vermin control activities. An effort has been made to overcome this apathy, but with only partial success.

One of the most effective methods of controlling vermin in remote sections of Pennsylvania, as well as in industrial localities, is through sportsmen's organizations putting on special vermin control campaigns, and sportsmen giving our Bureau of Vermin Control more information relative to localities where vermin conditions need special attention.

During the past year many sportsmen's organizations fostered vermin control campaigns. More campaigns of this kind are being sponsored by sportsmen every year. Special study and time devoted to this phase of game conservation by sportsmen's organizations will produce far better results than the same amount of time and effort devoted to restocking depleted covers.

During the fiscal year 1924-25, the bounty claims were considerably lower than for the year previous. During the past year, even though the winter was not so favorable for trapping, increased effort along the line encouraged far more trapping and vermin-hunting with dogs, and the bounty claims increased decidedly. Part of the increase in bounty claims was due to the new law protecting valuable dogs while being used to destroy foxes and wild cats.

As a matter of comparison we give below data on bounties paid during the past two years as follows:

SUMMARY OF BOUNTY CLAIMS FOR BIENNIIUM

	Wild Cats	Foxes		Weasels	Amount	No. of Claims
		Gray	Red			
1924-25	438	7177	4109	22,583	\$66,152	16,990
1925-26	509	8339	5993	37,353	90,316	22,790

Our representatives in many sections of the state report that weasels and foxes are now decidedly more scarce than for a number of years past. Game refuges and the surrounding territory have been trapped systematically and are quite free from vermin, and Refuge Keepers have been covering as much new territory as possible. In several instances these officers devoted part of the winter to trapping work a considerable distance from the refuge.

The daily claims were exceptionally heavy during the months of January and February of the past year. The largest amount of money paid out during any one month of the past biennium was \$23,396 in January, 1925. The next heaviest month was \$18,021 in February of the same year.

During the biennium our field officers killed vermin wherever possible. A total of 9,522 animals and 7,775 birds, classed as game destroyers, was so disposed of by paid officers of the Board during the past two years.

The two educational wild life exhibits, in connection with which thousands of leaflets and trapping bulletins were distributed and trapping demonstrations were given daily, visited eighteen county fairs during the 1924 season and sixteen fairs during the 1925 season. Exhibits were made at the State Farm Show twice during the biennium. These exhibits proved to be one of the biggest attractions at all fairs visited, and the demands from fair officials for future showings are beyond our ability to furnish exhibits. Through this effort many thousands of Pennsylvania's citizens have become conversant with the work of the Commission, and especially with the vermin control activities.

There is now a more general appreciation of the fact that vermin kills more game than is taken by sportsmen, and that it is utterly foolish to think of saving game by imposing restrictions upon sportsmen while vermin destroys at will. Many sportsmen now get more genuine enjoyment out of vermin hunts during the winter months than they do from their game hunting during the fall months.

## GAME FEEDING

Game feeding work has been stressed continuously during the past two years, and sportsmen, landowners, Boy Scouts, rural mail carriers, and others gave our officers splendid assistance in this work. The farmers in many sections of the state did considerably more feeding than the sportsmen, most of it at their own expense. The Boy Scouts organized some very successful feeding campaigns, which were invaluable from the standpoint of game fed, the example to others, and the lasting impression made upon the boys themselves.

Special game-feeding campaigns by sportsmen's organizations have also been very helpful. During the winter of 1924-25 our officers had an actual record of 105,000 quail; 34,000 ringneck pheasants; 3,469 wild turkeys; and thousands of ruffed grouse, squirrels, and other species of game fed. During the past winter our officers have reported actual knowledge of 98,391 quail; 31,812 ringneck pheasants; 4,046 wild turkeys, in addition to large numbers of other game and wild birds fed through the winter. While there were undoubtedly thousands of birds which lived through the winter without being fed, the feeding work done will show material results in future years.

The most spectacular and far-reaching of all feeding efforts during recent years was the distribution of grain from an airplane by the Blair County Game, Fish and Forestry Association at a time when snows were so deep that it was practically impossible for men to reach wild turkeys, grouse, ringneck pheasants and quail in that county by any other method.

The newspaper publicity given to this plan of feeding induced many Pennsylvanians to become more active in feeding work, and encouraged sportsmen in other states to undertake constructive feeding campaigns.

The Blair County organization later reported that their efforts were quite successful, although as a general policy they favor building feeding shelters in advance of heavy winter snows, particularly the hopper type of automatic feeder and shelter recommended by the Board.

The Game Commission has for a number of years been cautioning sportsmen against placing feed in large quantities in exposed places, or erecting of shelters from which feeding game is unable to escape quickly. Regardless of these repeated warnings a number of instances were reported where vermin took a material toll of game that was being fed. Failure to supply grit was reported in many cases. Sportsmen should bear in mind that it is just as important to supply grit for game

birds when the ground is covered with deep snow as it is to supply grain, and that instead of trying to draw game from a large territory to a central feeding location, food and grit should be widely distributed in small quantities, otherwise the feeding efforts will be more than offset by inroads from vermin.

In addition to grain distributed in the sheaf, in the shock, and otherwise, a special effort has been made to furnish more feed by planting grains of various kinds. During the first year of the biennium,  $75\frac{1}{2}$  acres were planted at the game refuges at a cost of \$813.10, or an average of \$10.80 an acre. During the past year 281 acres were cultivated and planted at the refuges at a cost of \$3,118.86, or an average of \$11.09 an acre. This past year throughout the state in localities where there were no refuges and more feed seemed to be desirable, a total of 378 acres were planted to buckwheat, corn, broom corn, wheat, rye, and other suitable feed, at a cost of \$4,345.65, or an average of \$11.49 an acre. This makes a total of  $734\frac{1}{2}$  acres of feed for which the Board of Game Commissioners paid \$8,277.61 during the biennium.

In addition to this feed-planting work, many farmers, sportsmen's organizations and others planted a large amount of feed and left it standing or harvested it for game of various kinds.

The results of this feed-planting work have in many instances more than justified the expenditure; in other instances the results produced did not justify the outlay. This is true particularly where feed was planted to supply a shortage of natural feed for deer in the hope that by supplying such feed the deer would not encroach upon farm crops and orchards. In all such cases further planting for this purpose is not justified.

One of the methods that has proven most effective in feeding game birds is to plant a good patch of broom corn near game cover, have it cultivated regularly, and at the proper time break over the seed tops. This supplies attractive feed and cover for quail, ringnecks and other game. Sportsmen, and landowners too, seem to be thoroughly alive to the fact that in order to maintain a supply of game, more food and cover must be furnished, and that a closely tilled farm district without feed and cover will not carry a good stock of game.

## GAME RESTOCKING

Game has been purchased in larger quantities for stocking purposes during the past two years. The available supply of native game for stocking purposes is gradually growing less throughout the country, but regardless of this fact during the 1924-25 fiscal year a total of \$138,971.99 was expended on purchase of game, expressage on game and feed for

game. During the second year of the biennium a total of \$136,871.45 was expended for these purposes. During the last year of the previous biennium expenditures for this purpose were \$99,000.

The birds and animals purchased for stocking purposes, the average cost and expressage, and the total average cost per head during the biennium were as follows:

**COST OF GAME PURCHASED DURING BIENNIVM**

Kind	Fiscal Year 1924-25				Fiscal Year 1925-26			
	Num- ber	Cost Each	Ex- press	Total Cost	Num- ber	Cost Each	Ex- press	Total Cost
Elk, (Males).....	6	\$65.00	\$103.50	\$168.50*	.....	.....	.....	.....
Deer.....	55	29.82	6.48	36.30	.....	.....	.....	.....
Beavers.....	24	25.00	1.53	26.53	.....	.....	.....	.....
Wild Turkeys.....	43	11.70	1.00	12.70	148	9.00	.32	9.32
Ruffed Grouse.....	248	6.00	1.96	7.96	.....	.....	.....	.....
Ringneck Pheasants.....	8525	2.91	.28	3.19	11894	2.94	.29	3.23
Ringneck Pheasant Eggs.....	17681	.25	.....	.25	.....	.....	.....	.....**
Bobwhite Quail.....	7218	2.05	.16	2.21	.....	.....	.....	.....
Hungarian Quail.....	.....	.....	.....	.....	3962	4.31	.12	4.43
Varying Hares.....	2251	1.00	.45	1.45	2132	1.00	.50	1.50
Rabbits, Cottontail.....	58404	.80	.29	1.09	49613	.80	.28	1.08
Fox Squirrels.....	311	1.38	.39	1.77	176	1.28	.34	1.62
Gray Squirrels.....	10	1.75	.35	2.10	56	2.00	.08	2.08
Raccoons.....	.....	.....	.....	.....	19	6.00	.77	6.77

\*Elk shipped in carload lots cost much less.

\*\*Orders placed for 3,246 eggs for 1925-26 to be accounted for in 1926-27 report.

From this table it will be noted that certain varieties of game have not been purchased in large quantities. Either such varieties were not available, or the funds did not permit purchasing larger quantities, or the Board deemed it unwise to make extensive purchases of certain species at this time.

Ruffed grouse have not been available in worthwhile numbers, but if present plans to secure such birds can be successfully consummated, a fair number may be obtained during the coming year.

Desirable wild turkeys are difficult to obtain. Squirrels have not been available in large numbers. Raccoons likewise have not been available at reasonable prices, but a few have been trapped at refuges and transferred for stocking elsewhere. No effort has been made to purchase additional elk, and there are so many deer in practically every section of Pennsylvania that further purchases of deer at this time are not desirable.

This is the first year the Board has been able to obtain Hungarian partridges in goodly numbers. Since bobwhite quail are now found in practically every county where conditions are suitable, the purchase of Hungarian partridges in preference to additional purchases of bobwhite quail was believed to be desirable. Although a few of these birds were stocked from fifteen to twenty years ago by interested sportsmen, such

stocking was only partially successful. Recent studies in the west, and by correspondence, of the conditions under which these birds have thrived best in America indicate that the stocking efforts of Pennsylvania sportsmen during previous years were not well planned. Experiments elsewhere have proven quite conclusively that in no instance should these birds be widely distributed in new territory in small numbers. Instead a number of releases of from fifteen to twenty birds should be made in suitable localities, preferably in wheat-growing sections, within a radius of two or three miles to guarantee proper mating. Birds so stocked in Pennsylvania this year have paired off by natural selection and are apparently doing very well. Arbitrary pairing of Hungarian partridges has not proven successful.

Cottontail rabbits are more in demand than any other variety of game, but ringneck pheasants are becoming more popular each year. Interested sportsmen and officers report that where these birds have been stocked in suitable cover around swamps and brushy ravines adjacent to farm lands, and have been hunted within reason, they are showing a material increase and are really good game birds. One of the big obstacles to overcome with ringneck pheasants is the inability of many hunters to tell the difference between male and female pheasants. Many persons have the erroneous impression that any pheasant with a long tail is a male bird, while in reality many of the female birds have tails almost as long as full grown males. The safest practice for all hunters to follow is to depend upon the marked difference in plumage, or the cackle of the male bird when flushed, and whenever in doubt refrain from shooting.

After studying closely the results from ringneck pheasant eggs purchased and distributed during the past ten years it is evident that it does not pay to purchase a large number of ringneck pheasant eggs and distribute them to inexperienced persons to hatch and rear the young birds. Instead better results can be obtained by purchasing the birds and releasing them during the early fall months.

While a number of sportsmen have been successful with ringneck pheasant eggs, the great majority of those who have tried it find that it requires considerable space and an unstinted amount of personal attention to rear these birds successfully. The demand for eggs is, therefore, not nearly so general as it was a few years ago.

Only recently a large ringneck pheasant farm was established on the outskirts of the city of Harrisburg by Mr. Harry I. Grace, who formerly was part owner of a successful game farm in Ohio. Others have reared these birds in Pennsylvania for a number of years, but not on anything like the large scale contemplated by Mr. Grace.

Because fully eighty per cent of Pennsylvania's sportsmen are interested in rabbit hunting, and because a plentiful supply of rabbits reduces the vermin demands on such game as wild turkeys, ruffed grouse, ringneck pheasants and quail, sportsmen generally are anxious to have all the rabbits stocked that can possibly be obtained. Many of them, however, not understanding the conditions under which rabbits must be secured, criticise the purchase and stocking of rabbits during the winter months. They feel much better results would be obtained if rabbits were secured during the latter part of February or the month of March.

Shippers advise us that they must obtain these rabbits during the last half of December, January and the early part of February, because at that time they are more easily trapped and in better condition for shipping, and the country boys in the west are willing to undertake trapping work at that time. In February snowstorms in the middle west usually cover the available food for rabbits, and they are then in unfit condition for shipment. Neither are conditions in Pennsylvania favorable for releasing rabbits during the average month of February, as most shelters and holes in the ground are covered with deep snow. Holding wild rabbits in confinement any considerable length of time is almost impossible.

Toward the end of February and early in March the female rabbits are too heavy with young for shipment, and the boys who do the trapping are too busy with their spring farm work to devote time to trapping. The only way, therefore, to secure rabbits in large numbers is to take them during the early winter months.

The varieties of game available in large numbers since the Board began using the funds of the sportsmen on June 1, 1915, have been rabbits, ringneck pheasants and quail. The following data on the numbers secured annually will be of interest:

#### NUMBER SECURED

Shipping Season	Cottontail Rabbits	Varying Hares	Ringneck Pheasants	Bobwhite Quail	Hungarian Partridges
1915-16.....	2,668	.....	2,096	6,915	.....
1916-17.....	3,186	.....	1,370	1,800	.....
1917-18.....	384*	.....	4,817	..... *	.....
1918-19.....	129*	64	6,003	1,470	.....
1919-20.....	245*	514	3,585	9,969	.....
1920-21.....	15,423	7,540	4,082	11,283	.....
1921-22.....	18,866	2,681	2,768	14,719	.....
1922-23.....	14,496	582	3,836	..... *	.....
1923-24.....	34,559	556	10,982	6,279	.....
1924-25.....	58,404	2,251	8,525	7,218	.....
1925-26.....	49,613	2,132	11,894	.....	3,962
Total.....	197,973	16,320	59,958	59,653	3,962

\*Orders placed but shippers were unable to make delivery or shipments were stopped because of inability to deliver in proper condition.

Various methods of handling game birds secured for stocking purposes have been tried. It has been proven that the best plan is to release practically all game birds as soon as received rather than attempt to hold them in captivity over the winter. Birds held in captivity do not come through in the best of condition for stocking purposes unless confined under the most favorable conditions and given very careful attention. Officers report that birds released in the fall or early winter months are better able to escape their natural enemies, and are in better condition to rear broods of young than birds held in captivity, as the latter become too much domesticated, are frequently overfat, and seem to lose their ability to take care of themselves.

The Board's present policy of stocking game only on lands open to public hunting or on lands set aside as state game refuges has helped improve conditions materially and the sportsmen approve this plan. Shipment of all game direct to District Game Protectors for distribution is sometimes criticised by those unacquainted with the many problems involved, but on the whole this is the only satisfactory method through which an equitable distribution of available game in the most desirable cover can be assured.

## EDUCATIONAL ACTIVITIES

The Educational Service, recently changed to the Bureau of Research and Information, was established in November, 1924. Prior thereto these activities were handled by the Executive Secretary, with a limited amount of assistance, but the demand for educational talks and publicity material was far beyond his ability to handle along with increasing administrative duties. The results of the educational activities during the biennium have fully justified this new departure in the administration of the Board's activities.

Of chief importance, especially from the standpoint of bringing before the public proper principles of wild life conservation and an explanation of the work of the Board, have been lectures before sportsmen's organizations, Grange organizations, Scout troops and civic and other organizations, including audiences in theaters on special occasions. The state has been covered quite thoroughly with this educational program, but requests for lectures have been far in excess of our ability to supply the desired assistance. Numerous organizations have asked for return engagements, and since there are in the neighborhood of a thousand sportsmen's and other organizations in the state to whom this lecture service is available, the difficulty of filling all engagements is readily apparent.

During the biennium the Chief of the Bureau, has delivered 237 addresses, and his assistant, who was detailed to this service only a year ago, has given a total of 208 addresses. In addition, a number of short talks were given before groups of Scouts, school children, and others.

In addition to the regular employes of the Board, trained scientific men have been employed for special occasions, and thirty-eight lecture engagements were covered by these assistants.

During recent months the Chief of the Bureau has devoted considerable time to motion pictures and other material for the Sesqui-Centennial exhibits, otherwise the number of addresses delivered by him would have been larger.

Members of the Board, the Executive Secretary, various Bureau Chiefs and other employes also have given a large number of addresses. Division Supervisors and District Game Protectors have devoted considerable time to educational activities and have given short, interesting talks to audiences wherever convenient.

One of the outstanding activities during the biennium has been the development of a number of reels of motion pictures. A number of additional reels are in the course of preparation. Quite a lot of this material was gathered before the Educational Service was established. Probably the most interesting reel of all has been the "Haunts and Habits of the Beaver," obtained in cooperation with the University of Pittsburgh, although the reels on "The White-tailed Deer," "Black Bear Hunting," and "Sportsmanship versus Vandalism" have won much favorable comment.

The Board's motion pictures have been received enthusiastically wherever shown. Some of the original reels have been literally worn out, and are being remade and improved wherever possible. The motion pictures which the Bureau of Research and Information hopes to have available for showing next winter will include a greater variety of subjects and will cover the various phases of the Board's activities fairly well.

The success of the wild life educational exhibits, including the distribution of many thousands of educational leaflets, in which the Educational Service had an important part, has been mentioned elsewhere in this report.

A bulletin on "A Year's Program for Bird Protection" was prepared and widely distributed. It has given the schools, Scout organizations and others interesting material for which they have found much use. A number of other bulletins are in the course of preparation.

Newspaper and magazine articles assisted in giving the people of the state much interesting and valuable information. The series of lantern

slides on birds now used by the Bureau is one of the finest in the country and is being enlarged and improved wherever possible. A series of slides on the mammals of the state is also about completed and will be available for lecture use.

There is a strong popular demand among the citizens of the state for a new and up-to-date book on the birds of Pennsylvania. The States of Massachusetts, New York, and West Virginia already have such volumes dealing with their birds, and the State of Ohio has one in the course of preparation. An authoritative treatise on the birds of Pennsylvania will be a very desirable and useful publication.

## HUNTERS' LICENSES

### *Material and Cost of Licenses:*

When the Board in 1924 decided to change the license tag from a fabricoid to an aluminum tag in the interest of durability and economy, sportsmen throughout the state protested because they had become accustomed to a flexible tag, and the aluminum tag used in 1924 was defective in design. The raised lettering rubbed off easily against trees and other objects with which the tags came in contact, and the lines used to divide different portions of the tag weakened the material so that it broke with a limited amount of abuse.

The design of the 1925 tag was materially improved; the depressed numerals and the enameled background made the tag more legible than any ever used, and it withstood much abuse. Sportsmen were well pleased with it, although many are still of the opinion that a more flexible tag would be desirable. By using this same type of tag for 1926 it will be possible to obtain further information on its desirability, also to ascertain the attitude of the sportsmen concerning the matter.

The printing contractor, J. L. L. Kuhn, sued the state for failure to order the license tags for 1923 from him. Tags for that year, the best in fabricoid ever used, were manufactured by a Baltimore firm. In the suit the printing contractor testified that the cost of doing the work on the 1923 tag would have been slightly over \$1,700, whereas under the contract he was entitled to receive more than \$35,000 for the work. The printer claimed that when he took the contract for the state printing in 1921 he understood that the state would continue placing orders with the printing contractor for fabricoid license tags, and that in arriving at figures for his bid he took into consideration the fact that the hunters' license tag job was a very lucrative one while on many other kinds of work he lost considerable money.

In the suit before the Auditor General the contention of the state that the 1923 tag was not a printing job such as is ordinarily done in a printing and binding establishment, and that the state was not committing a breach of contract in having that tag manufactured by a Baltimore firm, was not sufficient to satisfy the Auditor General. He rendered a verdict in favor of the printing contractor in the amount of \$33,456.37. The Attorney General was of the opinion that an appeal in the 1923 case would be of doubtful value, and recommended payment of the verdict.

Soon after the verdict of the Auditor General on the 1923 license job was paid, the printing contractor started suit for recovery on the 1924 hunters' license tags, which were manufactured on aluminum by the Prison Labor Board. The printing contractor did not contend that the 1924 tag was the kind of work ordinarily done in a printing and binding establishment, but contended that he was entitled to receive the order because he had based his bid on the Commission's having tags printed on fabricoid during the four years of his contract. This claim was rejected by the Auditor General. The case was appealed to the Dauphin County court where it has been tried but not yet argued.

In the meantime the sportsmen of the state, headed by the Camp and Trail Club of Philadelphia, have retained the services of Honorable Owen J. Roberts of Philadelphia, and the Central Pennsylvania Fish and Game Conservation Association of Harrisburg has retained George Ross Hull, Esquire, Harrisburg, to represent them and collaborate with Mr. Roberts. The case is to be argued on September 8 of this year. The final outcome of this case is difficult to anticipate, but it is hardly conceivable that the court will render a decision favorable to the printing contractor.

We have frequently been asked relative to the cost of each hunter's license tag and license complete. The costs of each of these licenses and tags complete during the past six years have been as follows: 1920-5.9 cents; 1921-6.2 cents; 1922-9.3 cents; 1923-3.8 cents\*; 1924-3 cents; 1925-3.8 cents.

Due to using the same tag dies, and to lower printing costs for the licenses under the new printing contract, the cost of the 1926 licenses and tags complete will be about 3 cents each.

The state printer had been paid more than adequately for the hunters' license tag work prior to 1921, but it will be noted that when the new contract became effective in 1921, after completion of the tags for that year, the cost of the tags for 1922 increased fifty per cent. Even though the printer won his suit on the 1923 tags and received a clear

\*Exclusive of the verdict paid to the state printer.

profit of \$33,456.37 without touching the work, the Board still saved considerable money and secured much more legible tags for the four years from 1923 to 1926 inclusive.

The legibility of the tags is a material item. Unless hunters' tags are clearly legible at all times throughout the hunting season they do not serve the purpose intended. When clearly legible and worn as required by law, these tags are a decided help in preventing as well as detecting law violations, preventing the destruction of personal property, and aid in improving conditions generally.

#### *Licenses Issued:*

The first year of the biennium there was practically no increase in hunters' licenses issued over the previous year. There would probably have been a larger increase had it not been for the fact that the Governor found it necessary to close the state to hunting for a number of days at the beginning of the season. The benefit of that action, however, far outweighed the loss of revenue.

During the fall of 1925 there was a decided increase in the number of licenses issued, due largely to unemployment in the anthracite coal region, and throughout the balance of the state because of industrial conditions.

The number of non-resident hunters' licenses issued has been increasing steadily, but the total number of our neighbors who come into Pennsylvania to enjoy the sport with us is still comparatively small.

As a matter of comparison, the following figures show the issuance of resident and non-resident licenses during the past seven years:

Year	Resident	Non-resident
1919	401,130	1,128
1920	432,240	1,725
1921	462,371	1,761
1922	473,735	2,126
1923	497,216	2,328
1924	497,386	2,552
1925	521,855	3,190

## GAME CONDITIONS AND GAME KILL

From reports obtained from field officers, sportsmen's organizations and individuals, and personal observations, game conditions have been fairly satisfactory throughout. Weather conditions during the summer of 1924 were not favorable for game birds. While such birds seemed to hatch fairly well, continued heavy rains and cool weather were responsible for a scarcity of insects and many of the young birds were drowned. The 1924 hunting season was the most unsatisfactory for all kinds of small game for a number of years, but on the other hand it was the best large game season recorded.

Conditions during the spring and summer of 1925 were more favorable throughout. The kill of rabbits, squirrels and grouse during the past five years has been as follows:

	1921	1922	1923	1924	1925
Rabbits.....	3,600,000	5,000,000	3,799,860	3,400,000	3,602,851
Squirrels.....	500,000	1,100,000	1,207,560	1,325,000	905,439
Grouse.....	325,000	600,000	580,000	330,000	355,980

Large game has shown a steady increase. Deer particularly have increased very rapidly, and bears show a steady increase. The kill of large game during the same period has been as follows:

	1921	1922	1923	1924	1925
Elk.....			23	10	6
Deer (Regular season).....	4,840	6,115	6,452	7,778	7,287
Deer (Special season).....			8	126	1,029
Bears.....	510	563	500	929	470
Wild Turkeys.....	4,654	5,431	6,049	2,331	3,241

The legal kill of game of all kinds during the biennium by licensed sportsmen, both resident and non-resident, but exclusive of the small game taken legally by approximately 75,000 unlicensed farmers and members of their families, was as follows:

#### GAME KILLED

Kind	Wt. of Ea.	Season of 1924		Season of 1925 (Preliminary report)	
		Number	Weight	Number	Weight
Elk.....	450 lbs.	10	4,500	6	2,700
Deer, legal males (Regular season).....	130 lbs.	7,778	1,011,140	7,287	947,310
Deer, special season.....	90 lbs.	126	11,340	1,029	92,610
Bears.....	200 lbs.	929	185,800	470	94,000
Rabbits.....	2 lbs.	3,400,000	6,800,000	3,602,851	7,205,702
Squirrels.....	1 lbs.	1,325,000	1,325,000	905,439	905,439
Raccoons.....	9 lbs.	85,000	765,000	75,081	675,729
Wild Turkeys.....	12 lbs.	2,331	27,972	3,241	38,982
Ruffed Grouse.....	1½ lbs.	330,000	495,000	355,980	533,970
Ringneck Pheasants.....	2½ lbs.	45,876	126,159	79,282	218,026
Quail.....	6 oz.	178,000	66,750	189,541	71,078
Woodcock and other shore birds.....	6 oz.	48,497	18,187	61,876	23,203
Wild waterfowl.....	3 lbs.	67,705	203,115	56,968	170,904
Total weight.....			11,039,963 lbs.		10,979,563 lbs.
Reduced to tons .....			5,519 tons		5,489 tons

The following information covering each of the various important species of game will be useful:

*Elk:*

These animals are not showing the increase expected. During the first open season in 1923 most of the large bulls were apparently killed off. The next year the number taken was considerably smaller, and in 1925 but six legal elk were taken. A number of calves were seen last summer, and prospects for the future are somewhat better. Range conditions do not now seem to be suitable to elk in Pennsylvania, and as game animals they do not compare with the native white-tailed deer. Since the season has been open, elk have not annoyed farmers as they did prior to 1923.

*Deer:*

Deer are increasing very rapidly. Almost every tract of forest land of any size is now the home of a few deer, and in many places they have actually increased to a point where the herds are considerably larger than the normal carrying capacity. Growing forest trees are shading out the undergrowth rapidly and the available food for deer has been much reduced. In many places the deer have simply increased to a point where there is not now nor has there been in recent years sufficient natural food to supply the normal demand of the present large herds.

Unless this matter is handled very judiciously, conditions in some sections of Pennsylvania will soon be a good parallel to conditions on the Kaibab National Forest on the north rim of the Grand Canyon in northern Arizona. In that instance the entire plateau, containing about 1,200,000 acres (the total of Pennsylvania's state-owned forest area) was set aside as a game refuge by President Roosevelt in 1906. Mule deer were the only game animals found on the plateau in any number. No hunting for deer was allowed, mountain lions and bobcats were killed off, and the deer increased very rapidly. They were unable to spread out because they are hemmed in by natural barriers.

When the mule deer on the Kaibab Forest were inspected in the fall of 1925, practically every bit of the desirable deer food was found to be gone, and all reproduction of certain forest trees was impossible because the deer were eating off the young trees as fast as they came up. The size and apparent age of the deer (more than half of them being antlered bucks) indicated that the Forest Ranger's statement to the effect that a large percentage of the fawns of the previous year starved during the winter of 1924-25 was literally true. The 1925 fawn crop was far below normal, and unless a drastic reduction is made without delay in the deer on the Kaibab Forest the herd is doomed.

Unless action is taken promptly, Nature will bring about a drastic reduction in the number of deer on that entire forest. The same thing is true in Pennsylvania today, where, however, no natural barriers prevent the deer from spreading out, and in many cases they encroach upon surrounding farms and orchards. A few years ago complaints of damage were coming from about ten counties. Today complaints are being received from farmers and fruitgrowers residing in more than twenty-five counties.

It is true that in many instances complaints of damage are grossly exaggerated, but a large majority of the reports have been substantiated by investigations of field officers. Deer have been particularly destructive to young orchard trees, truck patches, buckwheat patches and certain other crops. The effort to furnish more feed by sowing grain did not help to keep the deer from encroaching upon neighboring farms. In some instances farmers complained that the feeding patches established by the Game Commission were really drawing more deer from the forest area to feed upon their crops. Deer-proof fences have helped relieve depredations in some of the most serious cases, especially fruit orchards. Unfortunately, it is impossible to fence rapidly enough to protect a material portion of the private property from deer depredations. If it were a localized problem it would be a different matter, but where almost half the counties of the state are affected it is utterly impossible.

Trapping deer to reduce the stock and relieve depredations quickly has been almost out of the question. So many adverse factors are encountered that the operation actually costs more per deer than the cost of such animals when purchased in the open market. Relief cannot be provided rapidly enough by this method to meet the situation with anything like a reasonable expenditure.

Aside from the question of damage being done by deer, another problem of equal importance confronts the future of Pennsylvania's deer. In many old deer sections today the number of females is far in excess of a proper breeding ratio. The new law protecting spike bucks has already saved a goodly number of young males for future breeding purposes, but the number of females is also increasing constantly. With an annual increase in the number of our hunters, the deer hunting territory is covered more thoroughly every year, and the chances for deer with legal antlers to escape are constantly growing less. It is evident, therefore, that the protection of spike bucks alone will not bring about a proper balance in the deer herds, and that further steps must be taken.

The results of the several special seasons have not been all that could be hoped for. While these special seasons have been effective in every

county where the local hunters and the landowners gave the plan a fair trial, wherever hunters were antagonistic and opposed this method of remedying conditions, the special season was effective only in part.

The new law governing special deer seasons, even though not perfect, is a decided improvement over the former law. An effort was made to place free licenses in the hands of farmers and orchardists so far as possible, next in the hands of other residents in the territory to be opened and after that the licenses are offered to the sportsmen of the state.

Among the applicants for special deer licenses were many leading sportsmen who desired to make a study of conditions. Others were of a more or less careless type who did not always heed instructions to confine their efforts close to farms and orchards. This was true particularly in the South Mountain belt where local hunters were antagonistic to the special season.

Quite a few hunters with the best of intentions were mistaken in their judgment of size and killed young bucks without antlers, or young does. About twenty-five per cent of the kill of 1,029 deer during the special season of 1925 consisted of deer under two years old. The licenses issued and the number of deer killed in special seasons during the past three years were as follows:

#### SPECIAL DEER LICENSES

Year	County	Free	Paid	Number of Licenses	Legal Deer Killed	Illegal Deer Killed
1923	Franklin.....	...	.....	100	8	2
1924	Huntingdon.....	...	.....	244	77	9
1924	Mifflin.....			212	49	7
1925	Adams.....	163	694	857	89	4
1925	Cumberland.....	65	918	983	127	3
1925	Franklin.....	78	700	778	130	1
1925	Huntingdon.....	107	1,386	1,493	390	7
1925	Mifflin.....	81	813	894	167	6
1925	Perry.....	212	496	708	126	1
	Total.....			6,269	1,163	40

From this tabulation it will be noted that during the 1924 season the average was one deer to slightly more than three hunters. The number of hunters in the territory opened was then comparatively small. Killing of any deer other than large females was illegal, and quite a few young bucks, most of them with large frames but without antlers, were killed. On the basis of this experience it was felt that during the 1925 season, when any deer without visible antlers could be killed, but hunters were asked to kill large females if possible, the kill would be at least one deer for every three hunters, and licenses were issued accordingly.

However, it appears that because many more hunters were afield, the ratio instead of being one to three ran almost one to six. In other words, during the special season of 1925 it required a season of four days for six hunters to kill one deer. This in itself is sufficient answer to those who feel that all surplus deer should be killed and disposed of by the limited number of officers of the Commission, regardless of the fact that such men have other highly important duties during the very period when such animals should be removed.

Those opposing this method of reducing the surplus deer have taken the position that a large percentage of the licenses were not used. Reports from the field indicate that this is not true, and that most of the licenses were used. It is unfortunate that many young deer were killed, but in most instances they were killed on farms and in orchards or wood-lots adjacent thereto. In one section of Huntingdon County where a farm is surrounded on three sides by forest land, sixty-five deer were killed on that farm and within a half mile adjacent, with plenty of deer left in that territory. In another county, a farmer planted a young fruit orchard because he thought the deer would be much reduced in number by the special season, but found this spring that there were plenty of deer left. In another section, where the special season included territory adjacent to a game refuge, and the local hunters were antagonistic, about sixty deer were killed. The Refuge Keeper reports seeing more deer there this spring than at any time during the past five years. There is, therefore, no need for alarm about a future supply of deer even though special seasons are declared.

The special seasons so far have had the effect of bringing sportsmen to a realization that this deer problem is a real and not an imaginary one. Landowners on the other hand realize that there is very little possibility of a law authorizing payment for damages done. In the absence of a better solution, requests for special seasons are coming from a number of new sections, some of them in other parts of the same counties where open seasons were declared heretofore, but none for the same sections.

Sportsmen are beginning to realize that allowing landowners to kill deer where they are committing depredations, or declaring special open seasons for a given locality, or fencing the property of landowners who can afford to take advantage of the fencing law, are only temporary localized methods of relief. In view of the unbalanced ratio of the sexes and the possible reduction in size in our future deer as a result of unsatisfactory breeding and food conditions, many sportsmen recommend that the best method by which to remedy conditions promptly is to protect all deer with visible antlers throughout the state for one year, and provide for a short special season of not more than a week on deer without visible antlers.

This would be a drastic step, but the only way to decide the wisdom of such action is to try it. Under such a plan, if hunting camps would not be allowed to kill more than six deer, it would certainly confine their efforts to killing females that are no longer useful for breeding purposes. Many of the camps have been taking out six bucks annually, and a reduction in the number of females in sections hunted by organized parties would not be harmful. Portions of the state that are hunted mostly by day hunters are the sections where the largest kill would occur, but an analysis of the situation shows that those are the very localities where most of the deer depredations are now being committed. Allowing camps to kill does by special permits and denying such privilege to the thousands of good sportsmen who do not hunt with organized camps would be grossly unfair to the latter class of hunters, and would not remove the deer in sufficient number where most necessary.

The suggestion that each hunter be permitted to kill a buck and a doe during one season is not a wise plan. It is obvious that in a state so thickly hunted as Pennsylvania this method would result in the killing of many men.

Many thinking sportsmen argue that reversal of the seasons for one year will remedy this deer problem at one stroke, and will not be seriously injurious to future deer hunting in Pennsylvania. Sportsmen must simply disregard their sentimental attitude toward female deer and be willing to try sensible game management if they hope to remedy this situation without undue friction extending over a long term of years.

When the Legislature of 1925 considered changes in the law recommended by a joint committee of sportsmen and farmers, many sportsmen opposed such changes to the bitter end. They were fearful that any attempt to allow landowners to kill deer and retain the carcasses for food, even though such animals are doing material damage, would mean the needless destruction of a large number of deer. The law as finally passed placed upon the Board the responsibility of designating sections of the state where material damage to private property was sufficiently serious to warrant allowing landowners the privilege of retaining carcasses.

When the Board, at their meeting on July 13, 1925, designated twenty counties or parts of counties as having sufficient damage throughout such areas to warrant extending this privilege to landowners, sportsmen remonstrated bitterly. The counties designated by the Board were as follows:

Adams, Carbon, Centre, Clearfield, Cumberland, Franklin, Huntingdon, Juniata, Lackawanna, Luzerne, Lycoming, Mifflin, Monroe, Perry, Pike, Snyder, and Union Counties; also Antes Township, Blair County; Fox, Jay and Benezette Townships, Elk County; and Cook and Ligonier Townships, Westmoreland County.

Some landowners took advantage of the privilege accorded to them, but in most instances farmers have taken the position that they do not care to kill surplus deer; instead they prefer to have such deer disposed of under some other provision of the law, preferably by the sportsmen.

From July 13, 1925 to the end of the biennium the deer killed in the several counties designated, and the disposition of the carcasses have been as follows:

County	Deer Killed	Retained for Food	Number sent to Hospitals, etc.
Adams.....	10	8	2
Blair.....	1	1	0
Carbon.....	1	1	0
Centre.....	0	0	0
Clearfield.....	19	17	2
Cumberland.....	5	4	1
Elk.....	0	0	0
Forest*.....	1	0	1*
Franklin.....	1	1	0
Huntingdon.....	4	3	1
Juniata.....	0	0	0
Lackawanna.....	1	1	0
Luzerne.....	0	0	0
Lycoming.....	33	23	10
Mifflin.....	0	0	0
Monroe.....	2	1	1
Perry.....	4	3	1
Pike.....	2	2	0
Snyder.....	0	0	0
Union.....	1	1	0
Warren*.....	1	0	1*
Westmoreland.....	0	0	0
	86	66	20

\*These deer were killed in counties where retention of carcass was not authorized.

From the foregoing it will be noted that only 86 deer have been killed in the entire state as a protection to property and reported during the past year. Of this number 20 were sent to charitable institutions or were unfit for food, leaving a total of 66 retained by landowners for food in territory designated by the Board. This number is so small, comparatively speaking, that it is not a matter for serious alarm, but the fact that the state is willing to recognize the claims of landowners to this extent has helped to improve relations between landowners and sportsmen very decidedly.

The kill of legal bucks during 1924 was the largest ever recorded, and had it not been for unfavorable weather conditions during the first week of the 1925 season, it is believed the kill would have exceeded 1924 even though spike bucks were protected. More than 1,000 of these young bucks were saved, and with favorable hunting conditions during the 1926 season the kill will be in the neighborhood of 9,000 legal bucks.

The kill of illegal deer is also increasing. This is due not to more carelessness among sportsmen but simply a case of so many deer running together in herds in certain sections that many illegal deer are

killed while hunters are shooting at legal deer. Some of this killing is purely accidental, the balance is simply carelessness. The first year following every drastic change in the buck law the kill of illegal bucks has always been larger than the previous year, but by the second year following the change the hunters become acquainted with the new law and are more careful.

In 1923 the ratio of illegal deer was one to every fifteen legal bucks. In 1924 it was one to every sixteen legal bucks, but in 1925 the ratio was one illegal deer to every twelve legal bucks. The best record was in 1921, when the ratio was one illegal deer to twenty-seven legal bucks, but that was an exceptional year. These ratios do not include deer, which were killed by running into obstructions.

The number of deer killed each year by running into fences and other obstructions of various kinds during the hunting season has been increasing. During the 1923 season 70 deer were so killed—29 of them were young bucks and 41 were does. In 1924 there were 104 deer killed in this manner. Of those, 44 were young bucks and 60 were does, while in 1925 the total number of deer killed by running into obstructions was 170. Of these, 89 were bucks and 81 does.

The antler classifications during the past three years have proven interesting, the percentage of three and four point bucks having increased, as will be noted from the following table:

KIND	1923	1924	1925
Legal bucks.....	6,452	7,778	7,287
Spike bucks.....	1,001-16%	833-11%	(Protected)
2 points to 1 side.....	1,322-20%	1,571-20%	1,784-24%
3 points to 1 side.....	1,766-27%	2,144-27%	2,223-31%
4 or more points to 1 side.....	2,363-37%	3,230-42%	3,280-45%
Illegal deer killed during regular season.....	429 ....	483 ....	592 ....
Legal deer killed during special season.....	8 ....	126 ....	1,029 ....
Illegal deer killed during special season.....	2 ....	16 ....	22 ....

#### Bears:

Bears are showing a steady increase. The kill in 1924 was the largest ever recorded in Pennsylvania. In 1925 adverse food conditions as well as the protection of baby bears reduced the kill. In 1924 beech-nuts were plentiful and several tracking snows during the season made it possible to locate and kill bears in large numbers. In 1925 the beechnut crop was a failure. Bears were feeding on acorns, grapes, dried berries, and other scattered food. Due to the absence of tracking snows it was difficult to locate and kill bears.

Complaints of damage to beehives and sheep are being cared for as rapidly as reported. During the past two years claims have been paid as follows:

**BEAR DAMAGE CLAIMS**

For What Paid	1924-25				1925-26			
	No. of Claims	No.	Average Paid	Amount	No. of Claims	No.	Average Paid	Amount
Sheep.....	25	161	\$10.45	\$1,682.50	30	119	\$ 8.90	\$1,059.00
Beehives.....	8	21	12.20	256.00	5	14	10.07	141.00
Cattle.....	3	4	31.45	125.00	1	1	50.00	50.00
Total.....	36	186		\$2,063.50	36	134		\$1,250.00

This spring, due to the absence of a beechnut crop last fall, officers anticipated bears would be hard pressed for food and would cause considerable damage, but so far the complaints are comparatively limited. Wherever possible bears actually responsible for destroying sheep or beehives have been killed. By removing the few outlaw bears that have acquired such bad habits, the trouble is remedied.

An equitable adjustment of bear damage claims is possible with a fair deal for all concerned, because the evidence is plainly visible to men of experience, and the number and value of sheep or beehives destroyed can be easily verified. This would be impossible in estimating damage to farm crops or orchards by deer.

During the biennium eight bears were trapped and transferred for stocking purposes making almost a hundred so transferred to date. These bears were all taken out of sections where they were quite plentiful and where local depredations were occurring.

*Rabbits:*

Rabbits were scarce during the 1924 hunting season largely because many litters of young were drowned during the wet spring and summer months. During the winter of 1924-25 over 58,000 were stocked, weather conditions were more favorable during the following spring and summer, and the season in 1925 was considerably better. There was no evidence of disease among the rabbits in 1924 although a few cases of dead animals being found were reported.

During the past winter 49,613 rabbits were purchased and stocked, and with favorable weather conditions this spring the supply of rabbits should be fully up to normal this coming fall.

A few complaints of ringneck pheasants destroying rabbits have been received. These complaints have been checked up and invariably have proven to be without foundation.

The supply of varying hares seems to remain about the same from year to year, but it is believed they are increasing. Sportsmen strongly urge that the season on rabbits and hares be closed November 30 to save more breeding stock and eliminate small game shooting during the deer season.

#### *Squirrels:*

Squirrels have shown a steady increase during the biennium. The 1924 hunting season was the best Pennsylvania sportsmen have enjoyed for several years. In 1925, however, hunting conditions were not so favorable and the kill of squirrels was considerably lower, except in northern Pennsylvania where squirrels were found quite abundantly.

#### *Wild Turkeys:*

As noted in the figures above given, the kill of wild turkeys in 1924 was considerably below normal. Over 3,000 turkeys were fed through the winter of 1924-25 and additional birds came through the winter without feeding. Because of a favorable hatching and rearing season in 1925, sportsmen looked forward to a much better season for wild turkeys that year. Unfortunately weather and food conditions were not favorable to turkey hunting, and while the kill was better than the year previous, it was still far below expectations.

Sportsmen generally are of the opinion that wild turkeys should be given absolute protection for at least one year. In a few counties reports indicate there are sufficient turkeys left over for breeding purposes, but this is not true throughout all of the turkey range. Further restrictions on hunting turkeys are being urged. The majority of sportsmen who have studied the question recommend a law allowing the killing of gobblers with beards only.

#### *Ruffed Grouse:*

The unfavorable hatching and rearing season during 1924 resulted in the poorest ruffed grouse season that year that Pennsylvania has experienced since 1917, following which the state was closed entirely for one year. The season was more favorable during 1925 and the kill of grouse was about twenty-five per cent better than the year previous, but still considerably below former years. This condition was said to be general throughout all of the eastern grouse range and was not con-

fined to Pennsylvania alone. All through the northeastern section of the state sportsmen have been urging absolute protection for grouse for at least one year. In many of the counties of the northwestern part of the state sportsmen have urged similar action. Investigations have failed to show evidence of grouse disease.

According to reports, there are certain areas in the state where grouse are sufficiently plentiful to warrant an open season without reduction of any kind, but such areas would be over-hunted if left open to hunting and a large part of the grouse territory in other sections should be closed for one year. Many sportsmen are of the opinion that the state should really be closed entirely as it was in 1918. From reports received such drastic action is not deemed necessary this year, but many sportsmen urge that grouse be given additional protection during the season of 1926. Sportsmen generally are opposed to closing some sections of the state and crowding all of the grouse hunters into a portion of the usual grouse hunting territory.

#### *Ringneck Pheasants:*

These birds are in much better favor among the sportsmen of the state than ever before, but the present thirty day season is entirely too long. While many hunters are still unable to distinguish between male and female pheasants and some hens are killed by mistake, the law protecting hen pheasants has aided in increasing ringnecks.

Counties in which ringnecks are thriving best are those where plenty of swamp territory prevails, except in high mountain swamps such as exist in the Poconos. Wherever ringnecks have been stocked on high elevations they drift down to the farm valleys and remain along the streams and brushy ravines where both food and shelter conditions are to their liking. With a proper amount of restocking, winter feeding, and vermin control ringneck pheasants should continue to show an increase.

Most sportsmen who have hunted ringneck pheasants in sections where these birds have been hunted regularly for a number of years report that they are as good game birds as ruffed grouse. It is doubtful whether this will ever be true of ringneck pheasants, but the great majority of sportsmen who hunt ringneck pheasants fail to use shot of sufficient weight to stop these heavy birds and many are wounded and lost. Nothing less than No. 6 chilled shot should ever be used for ringnecks, preferably No. 4 or No. 5.

Hunters as a rule use shot of too small size in their small game hunting. Density of pattern should not be the only goal, especially when game must be sacrificed to obtain it. By using heavier shot sportsmen will either make clean kills under average conditions or will miss entirely.

*Bobwhite Quail:*

These birds have been multiplying rapidly. During the spring of 1924 over 6,000 Mexican quail were stocked while during the spring of 1925 there were 7,218 of these birds released. This spring no Mexican quail were purchased due to unfavorable importation conditions and a desire to secure Hungarian quail and more rabbits than would otherwise have been possible.

The special campaign to encourage landowners to save cover suitable for quail has helped to improve conditions. More sportsmen, Boy Scouts, and landowners have taken an interest in feeding quail during the winter months than ever before. No widespread effort was made to trap large numbers of quail to be carried through the winter and distributed the following spring for stocking purposes because the majority of sportsmen favor feeding the birds in their natural habitat, even though some losses do occur, rather than have them trapped and cared for in captivity.

*Hungarian Partridges:*

The few Hungarian partridges in Pennsylvania prior to recent stocking have barely been holding their own. After making a careful study of stocking efforts by various other states and provinces in the west, it was clearly demonstrated that the only way to stock these birds successfully is to make a number of releases of from fifteen to twenty birds in close proximity rather than scatter them in single pairs, or even three or four pairs in a section with no other Hungarians nearby. In almost every case where this plan of restocking was followed in other states, and in some of the Canadian provinces, and the birds were given reasonable protection, they have shown a remarkable increase. Following this study, 4,000 Hungarian partridges were purchased and stocked this past winter in sixteen counties. In every instance the birds were released in the manner recommended. A number of Hungarians were released in early December. They were fed and reports received are to the effect that they seemed to withstand the severe winters much better than bobwhite quail. They have paired off and sportsmen interested are very optimistic about the possibilities of these birds.

*Woodcock:*

The majority of Pennsylvania sportsmen are still of the opinion that woodcock should be given absolute protection throughout the United States and Canada for at least three years. The woodcock season during 1924 was entirely unsatisfactory, partly because of unfavorable weather conditions. The season in 1925 was somewhat better, but still not up to expectations.

*Wild Waterfowl:*

Reports indicate that these migratory game birds are increasing quite rapidly. Many more reports of large numbers of migrating ducks and geese have been received from all parts of the state during the past two years than any like period in the past. Unfortunately for Pennsylvania sportsmen, more of these birds pass through Pennsylvania on their northward migrations and stop on our rivers, lakes and ponds than during the hunting season.

*Beavers:*

Beavers have increased and spread rapidly throughout the state. Forty-two of these animals were trapped and new colonies established. Beavers are now found in at least thirty-five counties of the state. Indications are that it will be but a comparatively short time until taking beavers under special permits can safely be allowed without endangering the future supply.

## HUNTING ACCIDENTS

Accidents occurring while hunting are running unnecessarily high. Pennsylvania has collected more complete data on hunting accidents than any other state. Inquiry from the other states develops the fact that in most instances State Game Departments do not consider the collection of data on hunting accidents a part of their function. Pennsylvania has not only made it a point to collect this sort of information, because it has a decided bearing on this form of outdoor recreation, but has waged a campaign to prevent accidents. This has been done on the theory that unless the fields and forests are safe for everybody, they are unsafe for all.

During the 1924 hunting season, 38 fatal and 131 non-fatal accidents occurred. Of the fatal accidents, 53% were self-inflicted and 47% were inflicted by others. Of the non-fatal accidents, 46% were self-inflicted and 54% inflicted by others. Contrary to a quite general belief, most accidents were not caused by rifles. Seventy-eight per cent of the 1924 accidents were caused by shotguns and but 20% by rifles, the other 2% being caused by revolvers and pistols. Seventy-one per cent of all the accidents occurred in the open fields, 25% in forest territory, and the balance in conveyances or on the way to or returning from the hunt.

During the 1925 season a total of 52 fatal and 229 non-fatal accidents occurred. Of the fatal accidents, 52% were inflicted by others. Of the non-fatal accidents in 1925, 38% were self-inflicted and 62% were in-

flicted by others. Rifles were responsible for 19% of the accidents, shotguns for 79% and the balance were chargeable to revolvers. Fifty-two per cent of the 1925 accidents occurred in the open fields, 47% in forest territory, and 1% in conveyances or going to or returning from the hunt.

A rather general impression seems to prevail that most of the hunting accidents in Pennsylvania have been caused by carelessness on the part of hunting companions, whereas more than one-half of all the fatal accidents are self-inflicted. There seems also to be a general impression that most hunting accidents are caused by carelessness on the part of boys, but an analysis of the accidents during the biennium shows that but 20% of the accidents in 1924, and 24% of the accidents in 1925, were caused by boys under eighteen years of age; carelessness by adults caused the balance. Eighty-five per cent of the accidents were caused while hunting for small game; the balance while hunting for large game.

During the past five years hunting accidents occurred as follows:

	1921	1922	1923	1924	1925
Self-inflicted:					
Fatal.....	18-62%	20-54%	27-49%	20-53%	27-52%
Non-fatal.....	43-33%	40-32%	34-32%	60-46%	86-38%
Inflicted by others:					
Fatal.....	9-31%	17-46%	27-49%	18-47%	25-48%
Non-fatal.....	83-64%	80-64%	63-59%	71-54%	143-62%

With more than 600,000 hunters afield during a short season of approximately six weeks, which covers the most important hunting in Pennsylvania, it is a foregone conclusion that even though everyone is careful in handling firearms, a certain percentage of accidents will occur, but the number can be very decidedly reduced if every person who goes afield will make a special effort to avoid accidents. It is gratifying to note that firearms manufacturers are constantly adding new or improved safety features.

Fortunately there are very few instances on record where hunters have mistaken human beings for game. Every such case is being prosecuted under the Pennsylvania law in an effort to break up this type of

carelessness. During the biennium the persons so prosecuted, the offense, and the sentence imposed in the most important cases are as follows:

NAME	ADDRESS	OFFENSE	SENTENCE
Ralph R. Shank	New Kingston, Cumberland Co.	Shot and killed James L. Wickard, boy seven years old, in mistake for a groundhog. Shooting occurred in Cumberland County.	Fined \$500, sent to jail for 2 years, and paroled. (Judge overlooked part of sentence denying right to hunt for 10 years. Defendant made agreement with Dist. Atty. not to apply for a license during that period.)
Lloyd Knupp	Kregar, Westmoreland County	Shot and killed James M. Roadman in mistake for a deer. Shooting occurred during season of 1924 in Westmoreland Co.	Sentenced to pay a fine of \$1,000 to widow, and sent to jail for 2 years. License denied for 10 years.
Raymond Moyer	Alburtis, Lehigh County	Shot and killed Henry Bauman in mistake for a groundhog during season of 1925.	Paid all costs in connection with funeral, etc. Board revoked his license for 10 years.
Edward Shaffer	Coal Hill, Venango Co.	Shot and killed Francis Yoder in mistake for a groundhog, hunting season of 1925.	Sentenced to pay a fine of \$5.00 a month until discontinued by the court. License denied for 10 years.
Harrison Hipple	Bainbridge, Lancaster County.	Shot and killed Jacob C. Fry of Bainbridge in mistake for a bear during season of 1925.	Sentenced to pay \$750 to widow and serve 2 years in jail. License denied for 10 years.
Charles Miller	Fisherville, Dauphin Co.	Shot and killed Samuel S. Snyder in mistake for a deer during season of 1925.	Case is pending in Dauphin County court.

Sportsmen's organizations have been giving the question of accidents serious consideration. Many of them have cooperated with the Board in an effort to curb carelessness. Further assistance is much to be desired.

In an effort to reduce the number of accidents, the sportsmen were responsible for the passage of the law prohibiting the use of steel-jacketed bullets when hunting for large game. Another equally dangerous practice is the use of ounce balls in shotguns, especially by unorganized hunters, and there is strong sentiment among sportsmen in many sections of the state for the elimination of this type of firearm when hunting large game. Sections where shotguns are used most extensively are those in which a large percentage of the hunters are day hunters and not camp hunters. The number of persons using shotguns with ounce balls to hunt for deer and bears in different parts of the state runs from 10% up to 45%. The modern high-powered expanding bullet is more safe in Pennsylvania forest territory than the ounce ball fired at short range from a shotgun. It is worth noting that portions of the state where many deer are killed illegally are also the sections where a large part of the hunting for deer is done by day hunters using shotguns.

Persons not interested in hunting frequently take the position that the value of recreation obtained through hunting does not justify the toll of human life. These same persons are invariably staunch supporters of other forms of strenuous outdoor recreation, but are unaware of the fact that in almost everyone of these various forms of strenuous recreation the percentage of fatalities or injuries is fully as high as the percentage of hunting accidents. Even the ratio of highway fatalities is far greater than result from hunting. For example, in 1924 out of every 100,000 automobiles registered in the United States there were one hundred fatalities, while in Pennsylvania the same year there were less than eight persons killed for every 100,000 licensed hunters.

It is possible to bring about a decided reduction in hunting accidents if everyone interested will cooperate actively to that end.

### SPECIAL LICENSES

Special licenses and permits of various kinds are being issued in larger number each year. During the biennium more special licenses and permits were issued than in any similar previous period. Complete data on special licenses of various kinds issued since 1913 has been compiled and is given below, as follows:

SPECIAL LICENSES ISSUED BY FISCAL YEARS

Fiscal Year	Taxidermist	Ferret Owners	Ferret Breeder	Propagating	Collecting	Fur Dealers	Special Deer
1913-14.....	105	...	..	16	6	....	....
1914-15.....	194	...	3	21	9	....	....
1915-16.....	132	62	3	41	14	....	....
1916-17.....	119	55	2	49	11	....	....
1917-18.....	100	62	..	28	5	....	....
1918-19.....	108	34*	5	22	13	....	....
1919-20.....	124	66	..	27	14	....	....
1920-21.....	162	61	6	30	18	....	....
1921-22.....	232	157	4	40	16	....	....
1922-23.....	242	106	1	40	13	....	....
1923-24.....	295	74	2	62	13	679	100
1924-25.....	339	69	..	57	16	898	456
1925-26.....	443	77	1	82	20	1,073	5,713

All special licenses now expire May 31 and it will be possible hereafter to give a correct statement of the total operations of such licensees. In the next biennial report the number of specimens handled by the taxidermists, fur-dealers and others can be given in full.

### STATUS OF FUNDS

Tabulated financial statements attached give the receipts and expenditures during the biennium. Due to an increase of \$21,323 in the bounty claims over the budget estimate for the second fiscal year,

the total budget for that year was overrun by \$14,524.94. This was more than offset by an increase in the estimated revenue for the second year of \$28,267.37, due largely to increases in hunters' licenses, penalties collected, and special deer license revenue.

The financial statements are arranged in accordance with the uniform accounting system now used by the Commonwealth and are sub-divided under the various Bureaus. Due to the fact that the educational activities during the past two years were handled by a staff service as part of the general office organization the expenses incurred in that activity are not shown separately in the financial statements. The principal expenditures for this purpose, exclusive of printing and office supplies, were as follows:

**EDUCATIONAL SERVICE EXPENDITURES**

	1924-25	1925-26
Salaries.....	\$2,688.08	\$ 6,327.96
Traveling expenses.....	379.45	2,477.14
Lecture fees, films, lantern slides, camera, and other supplies and equipment.....	1,027.52	4,577.14
Total.....	<hr/> \$4,095.05	<hr/> \$13,382.24

In the financial statements attached, payments out of special appropriations from the game fund for the legislative biennium of 1923-25 covering expenditures for deer-proof fences and damage by bears are not shown. Out of the fund of \$10,000 for the former purpose, \$1,575.08 was expended prior to June 1, 1925, and out of the fund of \$6,000 for the latter purpose, \$3,275.50 was expended prior to the same date. The balances in these two appropriations were then redeposited in the game fund as shown in the financial statement for the second year.

The demands for additional service from the sportsmen throughout the state are considerably in excess of available funds. This is true especially of the demand for more game for stocking purposes, more lands for regular and auxiliary refuges and public hunting grounds, and increased vermin control activity. There also is considerable demand for more officers in many sections of the state, especially during the fall months.

During the biennium a total of more than \$275,843.44 was expended for the purchase of game, expressage on game, and feed for game, as follows:

	1924-25	1925-26
Purchase of game.....	\$101,743.70	\$ 98,252.37
Expressage on game.....	27,397.99	23,169.33
Feed for game.....	9,830.30	15,449.75
Total.....	<hr/> \$138,971.99	<hr/> \$136,871.45

Special mention of this matter is deemed desirable, since the law requires that at least \$100,000 a year be utilized for these purposes. These figures do not include any part of the cost of securing and maintaining game refuges for the propagation of game, or any part of the time or traveling expenses of field officers in connection with the distribution of game or feeding game, amounting to many thousands of dollars.

The accounting work is constantly growing. The accounting system has been enlarged so that special information on the cost of various activities is quickly available. During the biennium a total of 15,223 separate vouchers and checks, exclusive of 22,790 bounty claims with separate checks, were handled by the accounting staff in this office, with an unusual record for accuracy.

Further statistics on the various activities of the Board will be found in the statistical year book, which is published annually.

The data submitted in this report was compiled by Mr. Seth E. Gordon, while acting as Executive Secretary for the Board.

Respectfully submitted,

J. B. TRUMAN,

*Executive Secretary.*



**FINANCIAL STATEMENT OF GAME COMMISSION FOR FISCAL YEAR**  
**June 1, 1924 to May 31, 1925**

Balance to credit of the Game Fund in State Treasury June 1, 1924.....					\$282,580.78
<b>DEPOSITS</b>					
Net Revenue from Hunters' Licenses deposited in fund during year.....					
Penalties, costs, special licenses, etc., deposited during year.....					
Total.....					\$627,832.82 49,136.69 <hr/> \$939,550.29

DISBURSEMENTS					
	General Office	Bureau of Protection	Bureau of Refugees and Lands	Bureau of Vermin Control	Total
Salaries of regular officers.....	23,720.69	135,347.59	39,813.04	12,340.17	\$211,221.49
Traveling expenses of regular officers.....	2,287.97	80,731.99	5,448.41	2,734.75	91,203.12
Purchase of Game.....	101,743.70	.....	.....	.....	101,743.70
Feed purchased for Game, Express, Cartage, etc. (Mostly on Game).....	25.85	7,799.20	1,965.73	39.52	9,830.30
Deputy Game Protectors:					
Salaries.....	249.37	25,917.76	874.22	356.64	27,397.99
Expenses.....					
Labor on Refuges, (cutting fire lines, repairing roads, planting, etc.)		26,948.39	.....	.....	26,948.39
Salaries.....	\$15,269.50	.....	.....	.....	.....
Expenses.....	\$11,678.89	.....	.....	.....	.....
Purchase of Land:					
County	Refuge No.	Amount			
Sullivan.....	13	\$13,203.59			
Cameron.....	14	22,810.63			
Bedford.....	26	2,500.00			
Centre.....	33	23,429.25			
Elk and Clearfield.....	34	26,400.00			
Title Examinations.....		2,481.61			
			90,825.08	.....	90,825.08
Taxes and fixed charges on lands.....			4,891.48	.....	4,891.48
Buildings and construction on Refuges.....			7,469.99	.....	7,469.99
Contracted repairs to buildings, automobiles, equipment, etc.....			2,034.28	.....	2,034.28
Horse Feed at Refuges.....		563.73	2,756.06	.....	407.21
Miscellaneous Equipment (Horses, plows, tools, harness, traps, moving picture camera, etc.).....			3,831.94	.....	3,831.94
	558.27	183.75	2,149.18	.....	4,017.69

Miscellaneous Supplies (Lumber, crates, Cement, slides, films, wire, etc.)	1,558.31	236.43	3,046.95	1,108.95	5,950.64
Motor Equipment (Cars, Trucks, accessories)	95.78	78.80	657.23	107.74	1,648.55
Motor Supplies (Gas, oil, Tires, Tubes)	221.34	2,062.32	562.90	216.33	3,062.89
Office Equipment (Typewriters, files, desks, etc.)	6,350.72	.....	.....	.....	6,350.72
Office Supplies (Paper, folders, pencils, etc.)	3,002.36	.....	.....	.....	3,002.36
Postage (Office and Field)	4,403.11	621.17	90.96	805.75	5,920.99
Telephones, (Office and Field)	741.90	4,221.47	904.05	85.88	5,953.30
Telegrams, (Office and Field)	724.23	7.69	1.27	.65	733.84
Printing and paper (including purchase of license tags) and \$33,456.37	55,626.28	.....	558.47	.....	55,626.28
State Printers claim as profit on 1933 tags	384.11	109.00	.....	3.30	1,054.88
Newspaper Advertising (Closing Counties, Auxiliary Refugees, etc.)	197.77	871.15	439.00	81.50	1,589.42
Rentals, (Auto Storage, etc.)	.....	.....	.....	66,159.00	66,159.00
Payment of Bounties, (Wildcats, 438; Gray Foxes, 7,177; Red Foxes, 4,109	.....	.....	.....	.....	50.00
Weasels, 22,583)	50.00	.....	19.50	191.25	527.42
Return of fines erroneously collected and deposited	149.57	167.10	.....	.....	590.00
Other items, affidavit fees, etc.	590.00	.....	834.26	196.75	2,505.50
Attorney fees	792.93	681.56	.....	.....	165.00
Miscellaneous wages, fees, caring for game, etc.	165.00	30.00	8.00	.....	43.00
Bounties paid for killing dogs chasing deer	5.00	.....	.....	.....	.....
Physical examination of employees	.....	.....	.....	.....	.....
Totals...	\$204,207.99	\$289,480.43	\$178,811.39	\$85,961.88	\$738,461.69
Balance May 31, 1925.	.....	.....	.....	.....	\$201,088.60

**FINANCIAL STATEMENT OF GAME COMMISSION FOR FISCAL YEAR**

**June 1, 1925 to May 31, 1926**

Balance to credit of the Game Fund in State Treasury, June 1, 1925.....					\$185,639.01
<b>DEPOSITS</b>					
Net revenue from Hunters' Licenses deposited in fund during year.....					
Penalties, costs, special licenses, etc.....					
Redeposit Balance in Bear Damage Fund from 1923-1925 appropriation.....					
Redeposit Balance in Deer Proof Fence Fund from 1923-1925 appropriation.....					
Redeposit of Advancement for purchase of mule deer in 1924.....					
Total.....					
\$652,532.90 68,483.05 2,724.50 8,424.92 3,500.00 <hr/> \$921,304.38					

<b>DISBURSEMENTS</b>					
General Office	Bureau of Protection	Bureau of Refugees and Lands	Bureau of Vernin Control	Total	
28,902.47 3,264.21 98,252.37 17.00 47.51	144,955.45 83,445.13 · 10,461.90 21,880.16	44,672.50 7,562.83 · 4,781.42 726.69	12,552.09 3,183.26 · 189.43 89.97	\$231,082.51 97,455.43 98,252.37 15,449.75 23,169.33	
Salaries of regular officers.....					
Traveling expenses of regular officers.....					
Purchase of Game.....					
Feed for Game.....					
Expressage (Mostly on Game).....					
Deputy Game Protectors:					
Salaries.....	\$11,726.12				
Expenses.....	6,864.92				
18,591.04					
Labor on Refuges, cutting fire lines, repairing roads, planting, etc.....					
Expenses of laborers on refuges.....					
Purchase of Land and Title Examinations.....					
Taxes and fixed charges on lands.....					
Buildings and Construction on Refuges.....					
Contracted repairs to buildings, automobiles, equipment, etc.....					
Horse Feed at Refuges.....					
Miscellaneous Equipment, (Tools, harness, traps, etc, mostly on Refuges).....					
Miscellaneous Supplies, (Lumber, wire, crates, cement, etc.).....					
Motor Equipment, (Automobiles and accessories).....					
Motor supplies, (Gas, oil, tires, tubes, etc.).....					
Office equipment, (Desks, chairs, files, typewriters, etc.).....					
Office supplies, (Paper, carbons, folders, pencils, pens, etc.).....					
2,256.96					

Postage (Office and Field).....	4,197.40	687.41	110.62	1,519.89	6,515.32
Telephones, (Office and Field).....	477.31	4,058.14	880.00	44.02	5,459.47
Telegrams, (Office and Field).....	193.36	19.08	4.28	.80	217.52
Printing, (Including license tags).....	30,302.59	.....	.....	.....	30,302.59
Newspaper Advertising, (Closing of Counties, Auxiliary refuges, etc.).....	593.62	101.93	373.05	.....	1,068.60
Rentals, Auto storage, etc.....	51.05	973.75	410.38	98.70	1,533.88
Payment of Bounties, (Wildcats, 507; Gray Foxes, 8,339; Red Foxes 5,993; Weasels, 37,353).....	.....	.....	.....	90,323.00	90,323.00
Return of fines erroneously collected and deposited.....	76.05	220.00	123.23	134.44	220.00
Other items, affidavits, insurance, etc.....	854.24	418.04	.....	.....	751.76
Attorney Fees.....	1,430.45	55.45	427.20	.....	854.24
Miscellaneous wages, fees, caring for game, etc.	1,250.00	.....	9,809.87	.....	2,762.85
Deer Proof Fences.....	.....	.....	.....	.....	9,809.87
Damages by Bears.....	.....	.....	.....	.....	1,250.00
<b>Totals.....</b>	<b>\$180,914.76</b>	<b>\$300,639.99</b>	<b>\$126,868.61</b>	<b>\$113,499.58</b>	<b>\$721,922.94</b>
<b>Balance May 31, 1926.....</b>					<b>\$199,381.44</b>

Note: Because of vouchers, etc. in course of settlement the difference between the balances shown on our books and balances shown on the books of the State Treasury Department will vary slightly from time to time.













